North Dakota Construction

Academic Crosswalks

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North Dakota Department of Career and Technical Education
Wayne Kutzer, State Director
600 E Boulevard Avenue, Dept. 270
Bismarck, North Dakota 58505-0610
www.nd.gov/cte

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North Dakota Construction
Content Standards Writing Team Members

Clarke Molter
State Supervisor
ND Department of Career and Technical Education
600 E. Boulevard Avenue, Department 270
Bismarck, ND 58505-0610
(701) 328-3183
cmolter@nd.gov

Bob Bjornson
West Fargo Public Schools
West Fargo, ND

Jason Bowen
Sheyenne Valley Area Career & Technical Center
Valley City, ND

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Academic Crosswalks

What is an academic crosswalk?

Curriculum standards describe what a student should know and be able to do upon completing an instructional program. An academic crosswalk shows the connections between a career and technical education program standard and state academic standards developed by the North Dakota Department of Public Instruction.

What is the purpose of an academic crosswalk?

Academic crosswalks identify the links between career and technical education programs and academic programs. Each crosswalk in this document identifies one or more academic standards that might logically be addressed when developing instruction to meet a specific Construction standard.

When instructors teach curriculum based on the Construction standards, they have the opportunity to reinforce academic standards.

Making the Construction-academic connections will facilitate the process of identifying the role that Construction plays in reinforcing what students learn in their academic courses. Furthermore, it documents the ways that the Construction program can help meet local school-wide academic goals.

Which academic areas are crosswalked with the Construction standards?

Standards in all of the career and technical education program areas are crosswalked with two or more of the core academic standards (English/Language Arts, Mathematics, Science). Construction standards are crosswalked with all three of the core standards areas – English, Mathematics and Science.

Construction Core Crosswalk

Standard 1: Basic Safety
Topic 1: Foundations of Safety
Competency 1.1.1: Discuss the importance of working safely.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages

8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media

10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels,

water, soil, metals)

7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

11-12.6.3 Explain how designing and implementing technology requires weighing trade-offs between positive and negative impacts on humans and the environment

11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 1: Foundations of Safety
Competency 1.1.2: Explain problems that can result if proper procedures are not followed.

<u>English/Language Arts</u>

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.1.3 Differentiate between accurate and inaccurate information

6.1.4 Use information from several sources

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.4 Use graphic organizers and summarizing to enhance comprehension

6.2.5 Use prior knowledge and experiences to aid text comprehension

6.2.6 Read to be informed, entertained, and persuaded

6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
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8.4.3 Speak for different purposes; e.g., group discussions, research presentations and

demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.5.1 Identify existing and developing media

8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

9.1.1 Choose a broad topic, state the problem, or question

9.2.6 Demonstrate oral reading fluency

9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary

9.4.1 Analyze the audience and adjust message and wording to suit purpose

9.4.2 Use visual aides effectively in oral presentations

9.4.3 Use notes and manuscripts to make oral presentations

9.4.4 Engage in a group discussion

9.4.5 Use critical listening skills; i.e., reflection

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9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

10.1.1 Form questions to focus research

10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

10.4.1 Analyze the audience and adjust message and wording to suit the purpose

10.4.2 Use appropriate body language in oral presentations

10.4.3 Formulate questions in response to a verbal message

10.5.1 Identify existing and developing media

10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.2.3 Analyze details, facts, and concepts from nonfiction genres

11.2.5 Locate ambiguities in written text

11.2.6 Apply prior knowledge of content to interpret meaning of text

11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

11.4.1 Analyze the audience and adjust message and wording to suit the purpose

11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

11.5.1 Identify existing and developing media

11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.6.4 Identify emotionally charged language

12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

12.2.8 Use technical language/jargon to decipher meaning

12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender

12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations

12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
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Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and

number of animals in a feedlot versus water supply)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

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Standard 1: Basic Safety
Topic 1: Foundations of Safety
Competency 1.1.3: Describe the role of Occupational Safety and Health Administration (OSHA).

English/Language Arts

6.1.1 Pose relevant research questions

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6.2.7 Read to develop life-long reading skills and habits

6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

6.4.5 Use appropriate volume and eye contact when speaking

6.5.1 Identify existing and developing media

6.5.2 Use technology according to the district's appropriate use policy

7.1.1 Generate and evaluate questions relevant to research topic

7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information

7.1.3 Question the accuracy and relevance of information

7.1.5 Present research findings, including information and evidence from a variety of sources

7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts

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8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 2: Accidents: Causes and Results-explain the appropriate safety precautions to take around common job-site hazards.
Competency 1.2.1: Explain the causes of accidents, unsafe work habits, and their preventions.

<u>English/Language Arts</u>
6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for

personal recreation, to model forms of writing

8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology

8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.5.1 Identify existing and developing media

8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

9.1.1 Choose a broad topic, state the problem, or question

9.2.6 Demonstrate oral reading fluency

9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary

9.4.1 Analyze the audience and adjust message and wording to suit purpose

9.4.2 Use visual aides effectively in oral presentations

9.4.3 Use notes and manuscripts to make oral presentations

9.4.4 Engage in a group discussion

9.4.5 Use critical listening skills; i.e., reflection

9.5.1 Identify existing and developing media

9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

10.1.1 Form questions to focus research

10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

10.4.1 Analyze the audience and adjust message and wording to suit the purpose

10.4.2 Use appropriate body language in oral presentations

10.4.3 Formulate questions in response to a verbal message

10.5.1 Identify existing and developing media

10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.2.3 Analyze details, facts, and concepts from nonfiction genres

11.2.5 Locate ambiguities in written text

11.2.6 Apply prior knowledge of content to interpret meaning of text

11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

11.4.1 Analyze the audience and adjust message and wording to suit the purpose

11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral

interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 2: Accidents: Causes and Results-explain the appropriate safety precautions to take around common job-site hazards.
Competency 1.2.2: Explain how each good housekeeping rule helps to prevent accidents.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to

access information

7.1.3 Question the accuracy and relevance of information

7.1.5 Present research findings, including information and evidence from a variety of sources

7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts

7.2.5 Read to be informed, entertained, and persuade

7.2.6 Read to develop life-long reading skills and habits

7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

7.4.4 Construct questions in response to a speaker

7.4.5 Speak to entertain an audience; e.g., story telling

7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations

7.5.1 Identify existing and developing media

7.5.3 Assess the relevancy and accuracy of information in media messages

8.1.1 Use questions to narrow research topic

8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources

8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources

8.1.4 Use information from multiple sources when presenting research findings to defined audiences

8.2.2 Use prior knowledge and experiences to aid text comprehension

8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing

8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology

8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.5.1 Identify existing and developing media

8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

9.1.1 Choose a broad topic, state the problem, or question

9.2.6 Demonstrate oral reading fluency

9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management,

resource management)

Standard 1: Basic Safety
Topic 2: Accidents: Causes and Results-explain the appropriate safety precautions to take around common job-site hazards.
Competency 1.2.3: Discuss company safety policies and OSHA regulations.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media

7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message

10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)

7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 2: Accidents: Causes and Results-explain the appropriate safety precautions to take around common job-site hazards.
Competency 1.2.4: Describe the importance of reporting all injuries, accidents, and incidents.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension

6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to

inform, demonstrate, entertain, or persuade

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.5.1 Identify existing and developing media

8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

9.1.1 Choose a broad topic, state the problem, or question

9.2.6 Demonstrate oral reading fluency

9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary

9.4.1 Analyze the audience and adjust message and wording to suit purpose

9.4.2 Use visual aides effectively in oral presentations

9.4.3 Use notes and manuscripts to make oral presentations

9.4.4 Engage in a group discussion

9.4.5 Use critical listening skills; i.e., reflection

9.5.1 Identify existing and developing media

9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

10.1.1 Form questions to focus research

10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

10.4.1 Analyze the audience and adjust message and wording to suit the purpose

10.4.2 Use appropriate body language in oral presentations

10.4.3 Formulate questions in response to a verbal message

10.5.1 Identify existing and developing media

10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.2.3 Analyze details, facts, and concepts from nonfiction genres

11.2.5 Locate ambiguities in written text

11.2.6 Apply prior knowledge of content to interpret meaning of text

11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

11.4.1 Analyze the audience and adjust message and wording to suit the purpose

11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

11.5.1 Identify existing and developing media

11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.6.4 Identify emotionally charged language

12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

12.2.8 Use technical language/jargon to decipher meaning

12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 2: Accidents: Causes and Results-explain the appropriate safety precautions to take around common job-site hazards.
Competency 1.2.5: Explain the procedures and signals needed for an evacuation.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer

catalogs, magazines, newspapers, and primary sources

8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources

8.1.4 Use information from multiple sources when presenting research findings to defined audiences

8.2.2 Use prior knowledge and experiences to aid text comprehension

8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing

8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology

8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.5.1 Identify existing and developing media

8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

9.1.1 Choose a broad topic, state the problem, or question

9.2.6 Demonstrate oral reading fluency

9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary

9.4.1 Analyze the audience and adjust message and wording to suit purpose

9.4.2 Use visual aides effectively in oral presentations

9.4.3 Use notes and manuscripts to make oral presentations

9.4.4 Engage in a group discussion

9.4.5 Use critical listening skills; i.e., reflection

9.5.1 Identify existing and developing media

9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

10.1.1 Form questions to focus research

10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

10.4.1 Analyze the audience and adjust message and wording to suit the purpose

10.4.2 Use appropriate body language in oral presentations

10.4.3 Formulate questions in response to a verbal message

10.5.1 Identify existing and developing media

10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the

quality of life

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 3: Hazards on the Construction Job Site-explain the appropriate safety precautions to take around common job-site safety hazards.
Competency 1.3.1: Discuss the potential job site hazards and possible solutions.

English/Language Arts

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.1.3 Differentiate between accurate and inaccurate information

6.1.4 Use information from several sources

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.4 Use graphic organizers and summarizing to enhance comprehension

6.2.5 Use prior knowledge and experiences to aid text comprehension

6.2.6 Read to be informed, entertained, and persuaded

6.2.7 Read to develop life-long reading skills and habits

6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while

speaking

12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches

12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system

6.3.2 Use simple machines to change forces

6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)

6.5.1 Identify adverse weather conditions and how humans prepare for them

6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)

6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)

6.7.2 Explain how recycling and conservation affect populations, resources, and the environment

6.8.2 Identify scientific advances that have resulted in new ideas and further advance

7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)

7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)

7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)

7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 3: Hazards on the Construction Job Site-explain the appropriate safety precautions to take around common job-site safety hazards.
Competency 1.3.2: Define the importance of safety in weld and flame cutting

English/Language Arts

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles,

apron, eye wash station)

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 3: Hazards on the Construction Job Site-explain the appropriate safety precautions to take around common job-site safety hazards.
Competency 1.3.3: Describe the PPE necessary when arc welding and flame cutting.

English/Language Arts

Mathematics

- No existing North Dakota Mathematics standards

Science

Standard 1: Basic Safety
Topic 3: Hazards on the Construction Job Site-explain the appropriate safety precautions to take around common job-site safety hazards.
Competency 1.3.4: Explain trenches and excavation safety practices.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer

catalogs, magazines, newspapers, and primary sources

8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources

8.1.4 Use information from multiple sources when presenting research findings to defined audiences

8.2.2 Use prior knowledge and experiences to aid text comprehension

8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing

8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology

8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.5.1 Identify existing and developing media

8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

9.1.1 Choose a broad topic, state the problem, or question

9.2.6 Demonstrate oral reading fluency

9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary

9.4.1 Analyze the audience and adjust message and wording to suit purpose

9.4.2 Use visual aides effectively in oral presentations

9.4.3 Use notes and manuscripts to make oral presentations

9.4.4 Engage in a group discussion

9.4.5 Use critical listening skills; i.e., reflection

9.5.1 Identify existing and developing media

9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

10.1.1 Form questions to focus research

10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

10.4.1 Analyze the audience and adjust message and wording to suit the purpose

10.4.2 Use appropriate body language in oral presentations

10.4.3 Formulate questions in response to a verbal message

10.5.1 Identify existing and developing media

10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the

quality of life

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 3: Hazards on the Construction Job Site-explain the appropriate safety precautions to take around common job-site safety hazards.
Competency 1.3.5: Explain the hazards associated with proximity work and confined spaces.

English/Language Arts

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.1.3 Differentiate between accurate and inaccurate information

6.1.4 Use information from several sources

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.4 Use graphic organizers and summarizing to enhance comprehension

6.2.5 Use prior knowledge and experiences to aid text comprehension

6.2.6 Read to be informed, entertained, and persuaded

6.2.7 Read to develop life-long reading skills and habits

6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while

speaking

12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches

12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system

6.3.2 Use simple machines to change forces

6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)

6.5.1 Identify adverse weather conditions and how humans prepare for them

6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)

6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)

6.7.2 Explain how recycling and conservation affect populations, resources, and the environment

6.8.2 Identify scientific advances that have resulted in new ideas and further advance

7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)

7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)

7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)

7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 3: Hazards on the Construction Job Site-explain the appropriate safety precautions to take around common job-site safety hazards.
Competency 1.3.6: List the types of vehicles used on a job site and their safe operation.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and

make sense of text

7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics,

visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g.,

floods, storms, hurricanes, volcanoes, earthquakes)

6.7.2 Explain how recycling and conservation affect populations, resources, and the environment

6.8.2 Identify scientific advances that have resulted in new ideas and further advance

7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)

7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)

7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)

7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 4: Working Safely with Job Hazards-Explain the appropriate safety precautions to take around common job-site hazards
Competency 1.4.1: Explain and use lock-out/tagout systems.

English/Language Arts

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing

8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles,

apron, eye wash station)

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 4: Working Safely with Job Hazards-Explain the appropriate safety precautions to take around common job-site hazards
Competency 1.4.2: Explain the types of barriers and barricades.

English/Language Arts

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.1.3 Differentiate between accurate and inaccurate information

6.1.4 Use information from several sources

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.4 Use graphic organizers and summarizing to enhance comprehension

6.2.5 Use prior knowledge and experiences to aid text comprehension

6.2.6 Read to be informed, entertained, and persuaded

6.2.7 Read to develop life-long reading skills and habits

6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

6.4.5 Use appropriate volume and eye contact when speaking

6.5.1 Identify existing and developing media

6.5.2 Use technology according to the district's appropriate use policy

7.1.1 Generate and evaluate questions relevant to research topic

7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information

7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
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8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 5: Personal Protective Equipment-Demonstrate the use and care of appropriate personal protective equipment (PPE).
Competency 1.5.1: Describe and use PPE (e.g., eye protection, ear protection, hard hat, personal fall protection, respiratory protection, etc.)

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
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7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic

8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
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9.2.6 Demonstrate oral reading fluency
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9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
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12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

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Standard 1: Basic Safety
Topic 5: Personal Protective Equipment-Demonstrate the use and care of appropriate personal protective equipment (PPE).
Competency 1.5.2: Demonstrate the proper use and care of PPE

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded

6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
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7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and

demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.5.1 Identify existing and developing media

8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

9.1.1 Choose a broad topic, state the problem, or question

9.2.6 Demonstrate oral reading fluency

9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary

9.4.1 Analyze the audience and adjust message and wording to suit purpose

9.4.2 Use visual aides effectively in oral presentations

9.4.3 Use notes and manuscripts to make oral presentations

9.4.4 Engage in a group discussion

9.4.5 Use critical listening skills; i.e., reflection

9.5.1 Identify existing and developing media

9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

10.1.1 Form questions to focus research

10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

10.4.1 Analyze the audience and adjust message and wording to suit the purpose

10.4.2 Use appropriate body language in oral presentations

10.4.3 Formulate questions in response to a verbal message

10.5.1 Identify existing and developing media

10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.2.3 Analyze details, facts, and concepts from nonfiction genres

11.2.5 Locate ambiguities in written text

11.2.6 Apply prior knowledge of content to interpret meaning of text

11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

11.4.1 Analyze the audience and adjust message and wording to suit the purpose

11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

11.5.1 Identify existing and developing media

11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.6.4 Identify emotionally charged language

12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

12.2.8 Use technical language/jargon to decipher meaning

12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender

12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations

12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and

number of animals in a feedlot versus water supply)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 6: Lifting-Follow the safety procedures required for lifting heavy objects.
Competency 1.6.1: List and demonstrate the procedures used to lift safely.

English/Language Arts

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.1.3 Differentiate between accurate and inaccurate information

6.1.4 Use information from several sources

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.4 Use graphic organizers and summarizing to enhance comprehension

6.2.5 Use prior knowledge and experiences to aid text comprehension

6.2.6 Read to be informed, entertained, and persuaded

6.2.7 Read to develop life-long reading skills and habits

6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

6.4.5 Use appropriate volume and eye contact when speaking

6.5.1 Identify existing and developing media

6.5.2 Use technology according to the district's appropriate use policy

7.1.1 Generate and evaluate questions relevant to research topic

7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information

7.1.3 Question the accuracy and relevance of information

7.1.5 Present research findings, including information and evidence from a variety of sources

7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts

7.2.5 Read to be informed, entertained, and persuade

7.2.6 Read to develop life-long reading skills and habits

7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and

make sense of text

7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics,

visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g.,

floods, storms, hurricanes, volcanoes, earthquakes)

6.7.2 Explain how recycling and conservation affect populations, resources, and the environment

6.8.2 Identify scientific advances that have resulted in new ideas and further advance

7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)

7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)

7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)

7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 7: Aerial Work-Describe safe behavior on and around ladders and scaffolds.
Competency 1.7.1: Identify the different types of ladders.

English/Language Arts

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.1.3 Differentiate between accurate and inaccurate information

6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms,

prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology

8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.5.1 Identify existing and developing media

8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

9.1.1 Choose a broad topic, state the problem, or question

9.2.6 Demonstrate oral reading fluency

9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary

9.4.1 Analyze the audience and adjust message and wording to suit purpose

9.4.2 Use visual aides effectively in oral presentations

9.4.3 Use notes and manuscripts to make oral presentations

9.4.4 Engage in a group discussion

9.4.5 Use critical listening skills; i.e., reflection

9.5.1 Identify existing and developing media

9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

10.1.1 Form questions to focus research

10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

10.4.1 Analyze the audience and adjust message and wording to suit the purpose

10.4.2 Use appropriate body language in oral presentations

10.4.3 Formulate questions in response to a verbal message

10.5.1 Identify existing and developing media

10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.2.3 Analyze details, facts, and concepts from nonfiction genres

11.2.5 Locate ambiguities in written text

11.2.6 Apply prior knowledge of content to interpret meaning of text

11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

11.4.1 Analyze the audience and adjust message and wording to suit the purpose

11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

11.5.1 Identify existing and developing media

11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 7: Aerial Work-Describe safe behavior on and around ladders and scaffolds.
Competency 1.7.2: Discuss ladder safety and inspection.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources

7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 7: Aerial Work-Describe safe behavior on and around ladders and scaffolds.
Competency 1.7.3: Explain scaffolding systems.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources

8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
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12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
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12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
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6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
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7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
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7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
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11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
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11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 7: Aerial Work-Describe safe behavior on and around ladders and scaffolds.
Competency 1.7.4: Discuss OSHA scaffold standards and safe use.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
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6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

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7.1.1 Generate and evaluate questions relevant to research topic
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Mathematics

- No existing North Dakota Mathematics standards

Science

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technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

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Standard 1: Basic Safety
Topic 8: Hazard Communication Standard-Explain the importance of hazard communications (HazCom) and material safety data sheets (MSDSs).
Competency 1.8.1: Identify information on the material safety data sheet (MSDS).

English/Language Arts

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.1.3 Differentiate between accurate and inaccurate information

6.1.4 Use information from several sources

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.4 Use graphic organizers and summarizing to enhance comprehension

6.2.5 Use prior knowledge and experiences to aid text comprehension

6.2.6 Read to be informed, entertained, and persuaded

6.2.7 Read to develop life-long reading skills and habits

6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

6.4.5 Use appropriate volume and eye contact when speaking

6.5.1 Identify existing and developing media

6.5.2 Use technology according to the district's appropriate use policy

7.1.1 Generate and evaluate questions relevant to research topic

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7.4.4 Construct questions in response to a speaker
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11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the

environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 8: Hazard Communication Standard-Explain the importance of hazard communications (HazCom) and material safety data sheets (MSDSs).
Competency 1.8.2: Describe one's responsibilities under HazCom.

English/Language Arts
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids –

dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology

8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.5.1 Identify existing and developing media

8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

9.1.1 Choose a broad topic, state the problem, or question

9.2.6 Demonstrate oral reading fluency

9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary

9.4.1 Analyze the audience and adjust message and wording to suit purpose

9.4.2 Use visual aides effectively in oral presentations

9.4.3 Use notes and manuscripts to make oral presentations

9.4.4 Engage in a group discussion

9.4.5 Use critical listening skills; i.e., reflection

9.5.1 Identify existing and developing media

9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

10.1.1 Form questions to focus research

10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

10.4.1 Analyze the audience and adjust message and wording to suit the purpose

10.4.2 Use appropriate body language in oral presentations

10.4.3 Formulate questions in response to a verbal message

10.5.1 Identify existing and developing media

10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.2.3 Analyze details, facts, and concepts from nonfiction genres

11.2.5 Locate ambiguities in written text

11.2.6 Apply prior knowledge of content to interpret meaning of text

11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

11.4.1 Analyze the audience and adjust message and wording to suit the purpose

11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

11.5.1 Identify existing and developing media

11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics,

visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
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12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
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Mathematics

- No existing North Dakota Mathematics standards

Science

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6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
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6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
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Standard 1: Basic Safety
Topic 9: Fire Safety-Describe fire prevention and firefighting techniques.
Competency 1.9.1: Describe the fire triangle, and explain how each element needs to be present for a fire to start.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources

7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
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8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
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11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
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12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

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6.3.2 Use simple machines to change forces
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Standard 1: Basic Safety
Topic 9: Fire Safety-Describe fire prevention and firefighting techniques.
Competency 1.9.2: List the basic safety guidelines for fire prevention.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
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6.5.1 Identify existing and developing media
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7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
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7.1.5 Present research findings, including information and evidence from a variety of sources
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Mathematics

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6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)

7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 9: Fire Safety-Describe fire prevention and firefighting techniques.
Competency 1.9.3: Discuss the general fire precautions to ensure that a workplace is safe from fire.

<u>English/Language Arts</u>
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded

6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and

demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations

12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and

number of animals in a feedlot versus water supply)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 9: Fire Safety-Describe fire prevention and firefighting techniques.
Competency 1.9.4: Identify each class of fire.

English/Language Arts

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.1.3 Differentiate between accurate and inaccurate information

6.1.4 Use information from several sources

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.4 Use graphic organizers and summarizing to enhance comprehension

6.2.5 Use prior knowledge and experiences to aid text comprehension

6.2.6 Read to be informed, entertained, and persuaded

6.2.7 Read to develop life-long reading skills and habits

6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

6.4.5 Use appropriate volume and eye contact when speaking

6.5.1 Identify existing and developing media

6.5.2 Use technology according to the district's appropriate use policy

7.1.1 Generate and evaluate questions relevant to research topic

7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information

7.1.3 Question the accuracy and relevance of information

7.1.5 Present research findings, including information and evidence from a variety of sources

7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts

7.2.5 Read to be informed, entertained, and persuade

7.2.6 Read to develop life-long reading skills and habits

7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and

make sense of text

7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics,

visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g.,

floods, storms, hurricanes, volcanoes, earthquakes)

6.7.2 Explain how recycling and conservation affect populations, resources, and the environment

6.8.2 Identify scientific advances that have resulted in new ideas and further advance

7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)

7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)

7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)

7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 10: Electrical Safety-Define safe work procedures to use around electrical hazards.
Competency 1.10.1: Explain electrical theory.

<u>English/Language Arts</u>

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.1.3 Differentiate between accurate and inaccurate information

6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms,

prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology

8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.5.1 Identify existing and developing media

8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

9.1.1 Choose a broad topic, state the problem, or question

9.2.6 Demonstrate oral reading fluency

9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary

9.4.1 Analyze the audience and adjust message and wording to suit purpose

9.4.2 Use visual aides effectively in oral presentations

9.4.3 Use notes and manuscripts to make oral presentations

9.4.4 Engage in a group discussion

9.4.5 Use critical listening skills; i.e., reflection

9.5.1 Identify existing and developing media

9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

10.1.1 Form questions to focus research

10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

10.4.1 Analyze the audience and adjust message and wording to suit the purpose

10.4.2 Use appropriate body language in oral presentations

10.4.3 Formulate questions in response to a verbal message

10.5.1 Identify existing and developing media

10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.2.3 Analyze details, facts, and concepts from nonfiction genres

11.2.5 Locate ambiguities in written text

11.2.6 Apply prior knowledge of content to interpret meaning of text

11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

11.4.1 Analyze the audience and adjust message and wording to suit the purpose

11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

11.5.1 Identify existing and developing media

11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 10: Electrical Safety-Define safe work procedures to use around electrical hazards.
Competency 1.10.2: Define safe work procedures to use around electrical hazards.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources

7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 10: Electrical Safety-Define safe work procedures to use around electrical hazards.
Competency 1.10.3: Explain proper procedures for electrical shock.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources

8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres

11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 11: Blood borne Pathogens (29 CFR 1910.1030)
Competency 1.11.1: Explain what blood borne pathogens are.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the

accuracy of messages

12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches

12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system

6.3.2 Use simple machines to change forces

6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)

6.5.1 Identify adverse weather conditions and how humans prepare for them

6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)

6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)

6.7.2 Explain how recycling and conservation affect populations, resources, and the environment

6.8.2 Identify scientific advances that have resulted in new ideas and further advance

7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)

7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)

7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)

7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving

technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 11: Blood borne Pathogens (29 CFR 1910.1030)
Competency 1.11.2: Discuss the importance of avoiding blood contact with others.

English/Language Arts

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.1.3 Differentiate between accurate and inaccurate information

6.1.4 Use information from several sources

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.4 Use graphic organizers and summarizing to enhance comprehension

6.2.5 Use prior knowledge and experiences to aid text comprehension

6.2.6 Read to be informed, entertained, and persuaded

6.2.7 Read to develop life-long reading skills and habits

6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

6.4.5 Use appropriate volume and eye contact when speaking

6.5.1 Identify existing and developing media

6.5.2 Use technology according to the district's appropriate use policy

7.1.1 Generate and evaluate questions relevant to research topic

7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information

7.1.3 Question the accuracy and relevance of information

7.1.5 Present research findings, including information and evidence from a variety of sources

7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts

7.2.5 Read to be informed, entertained, and persuade

7.2.6 Read to develop life-long reading skills and habits

7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model

forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment

6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 11: Blood borne Pathogens (29 CFR 1910.1030)
Competency 1.11.3: Discuss the danger associated with chemical splashes.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes,

multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language

12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices,

deforestation, land-use practices, land-management strategies) on the environment

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 11: Blood borne Pathogens (29 CFR 1910.1030)
Competency 1.11.4: Locate the showers and eye washes and explain how to use them.

English/Language Arts

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.1.3 Differentiate between accurate and inaccurate information

6.1.4 Use information from several sources

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.4 Use graphic organizers and summarizing to enhance comprehension

6.2.5 Use prior knowledge and experiences to aid text comprehension

6.2.6 Read to be informed, entertained, and persuaded

6.2.7 Read to develop life-long reading skills and habits

6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

6.4.5 Use appropriate volume and eye contact when speaking

6.5.1 Identify existing and developing media

6.5.2 Use technology according to the district's appropriate use policy

7.1.1 Generate and evaluate questions relevant to research topic

7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information

7.1.3 Question the accuracy and relevance of information

7.1.5 Present research findings, including information and evidence from a variety of sources

7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts

7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
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9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations

9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
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11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
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11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
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12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
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12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces

6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
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11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 12: Exposure
Competency 1.12.1: Define exposure.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences

8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 12: Exposure
Competency 1.12.2: Explain what target organs are.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic

7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question

9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural

decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 13: Construction Ergonomics
Competency 1.13.1: Define ergonomics.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations

7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations

10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
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11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism,

battery)

7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)

7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 13: Construction Ergonomics
Competency 1.13.2: Explain how proper work practices can benefit one's long-term health.

<u>English/Language Arts</u>

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.1.3 Differentiate between accurate and inaccurate information

6.1.4 Use information from several sources

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.4 Use graphic organizers and summarizing to enhance comprehension

6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to

inform, demonstrate, entertain, or persuade

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.5.1 Identify existing and developing media

8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

9.1.1 Choose a broad topic, state the problem, or question

9.2.6 Demonstrate oral reading fluency

9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary

9.4.1 Analyze the audience and adjust message and wording to suit purpose

9.4.2 Use visual aides effectively in oral presentations

9.4.3 Use notes and manuscripts to make oral presentations

9.4.4 Engage in a group discussion

9.4.5 Use critical listening skills; i.e., reflection

9.5.1 Identify existing and developing media

9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

10.1.1 Form questions to focus research

10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

10.4.1 Analyze the audience and adjust message and wording to suit the purpose

10.4.2 Use appropriate body language in oral presentations

10.4.3 Formulate questions in response to a verbal message

10.5.1 Identify existing and developing media

10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.2.3 Analyze details, facts, and concepts from nonfiction genres

11.2.5 Locate ambiguities in written text

11.2.6 Apply prior knowledge of content to interpret meaning of text

11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

11.4.1 Analyze the audience and adjust message and wording to suit the purpose

11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

11.5.1 Identify existing and developing media

11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.6.4 Identify emotionally charged language

12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

12.2.8 Use technical language/jargon to decipher meaning

12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 14: Heat Stress
Competency 1.14.1: Discuss the signs of heat stress, heat cramps, and heat stroke.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms,

prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection

9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs,

materials and environmental factors)

6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)

6.7.2 Explain how recycling and conservation affect populations, resources, and the environment

6.8.2 Identify scientific advances that have resulted in new ideas and further advance

7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)

7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)

7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)

7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 14: Heat Stress
Competency 1.14.2: Explain how to recognize, prevent, and respond to heat stress.

<u>English/Language Arts</u>

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for

personal recreation, to model forms of writing

8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology

8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.5.1 Identify existing and developing media

8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

9.1.1 Choose a broad topic, state the problem, or question

9.2.6 Demonstrate oral reading fluency

9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary

9.4.1 Analyze the audience and adjust message and wording to suit purpose

9.4.2 Use visual aides effectively in oral presentations

9.4.3 Use notes and manuscripts to make oral presentations

9.4.4 Engage in a group discussion

9.4.5 Use critical listening skills; i.e., reflection

9.5.1 Identify existing and developing media

9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

10.1.1 Form questions to focus research

10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

10.4.1 Analyze the audience and adjust message and wording to suit the purpose

10.4.2 Use appropriate body language in oral presentations

10.4.3 Formulate questions in response to a verbal message

10.5.1 Identify existing and developing media

10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.2.3 Analyze details, facts, and concepts from nonfiction genres

11.2.5 Locate ambiguities in written text

11.2.6 Apply prior knowledge of content to interpret meaning of text

11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

11.4.1 Analyze the audience and adjust message and wording to suit the purpose

11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral

interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 14: Heat Stress
Competency 1.14.3: Discuss the importance of seeking immediate medical attention to heat exhaustion and heat stroke.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to

access information

7.1.3 Question the accuracy and relevance of information

7.1.5 Present research findings, including information and evidence from a variety of sources

7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts

7.2.5 Read to be informed, entertained, and persuade

7.2.6 Read to develop life-long reading skills and habits

7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

7.4.4 Construct questions in response to a speaker

7.4.5 Speak to entertain an audience; e.g., story telling

7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations

7.5.1 Identify existing and developing media

7.5.3 Assess the relevancy and accuracy of information in media messages

8.1.1 Use questions to narrow research topic

8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources

8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources

8.1.4 Use information from multiple sources when presenting research findings to defined audiences

8.2.2 Use prior knowledge and experiences to aid text comprehension

8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing

8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology

8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.5.1 Identify existing and developing media

8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

9.1.1 Choose a broad topic, state the problem, or question

9.2.6 Demonstrate oral reading fluency

9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
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11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic

manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 15: Cold Stress
Competency 1.15.1: Discuss the signs of cold stress, frostbite, and hypothermia.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media

7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message

10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

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6.3.2 Use simple machines to change forces
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6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)

7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
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11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 15: Cold Stress
Competency 1.15.2: Explain how to recognize, prevent, and respond to these conditions.

<u>English/Language Arts</u>
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension

6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
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7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
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12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender

12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
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12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

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6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
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society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)

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Standard 1: Basic Safety
Topic 15: Cold Stress
Competency 1.15.3: Discuss the importance of seeking immediate medical attention for hypothermia and frostbite.

English/Language Arts

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.1.3 Differentiate between accurate and inaccurate information

6.1.4 Use information from several sources

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.4 Use graphic organizers and summarizing to enhance comprehension

6.2.5 Use prior knowledge and experiences to aid text comprehension

6.2.6 Read to be informed, entertained, and persuaded

6.2.7 Read to develop life-long reading skills and habits

6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

6.4.5 Use appropriate volume and eye contact when speaking

6.5.1 Identify existing and developing media

6.5.2 Use technology according to the district's appropriate use policy

7.1.1 Generate and evaluate questions relevant to research topic

7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information

7.1.3 Question the accuracy and relevance of information

7.1.5 Present research findings, including information and evidence from a variety of sources

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7.2.6 Read to develop life-long reading skills and habits

7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms,

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7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
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Mathematics

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Science

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7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 16: Signs
Competency 1.16.1: Discuss the use of signs, signals, barricades, tags, and markers.

<u>English/Language Arts</u>

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for

personal recreation, to model forms of writing

8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology

8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.5.1 Identify existing and developing media

8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

9.1.1 Choose a broad topic, state the problem, or question

9.2.6 Demonstrate oral reading fluency

9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary

9.4.1 Analyze the audience and adjust message and wording to suit purpose

9.4.2 Use visual aides effectively in oral presentations

9.4.3 Use notes and manuscripts to make oral presentations

9.4.4 Engage in a group discussion

9.4.5 Use critical listening skills; i.e., reflection

9.5.1 Identify existing and developing media

9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

10.1.1 Form questions to focus research

10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

10.4.1 Analyze the audience and adjust message and wording to suit the purpose

10.4.2 Use appropriate body language in oral presentations

10.4.3 Formulate questions in response to a verbal message

10.5.1 Identify existing and developing media

10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.2.3 Analyze details, facts, and concepts from nonfiction genres

11.2.5 Locate ambiguities in written text

11.2.6 Apply prior knowledge of content to interpret meaning of text

11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

11.4.1 Analyze the audience and adjust message and wording to suit the purpose

11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral

interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 16: Signs
Competency 1.16.2: Explain the uses of various types of signs.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information

7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management,

resource management)

Standard 1: Basic Safety
Topic 17: Tags
Competency 1.17.1: Explain the uses of various tags, and identify the colors and shapes that denote various hazards.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media

7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message

10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)

7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 18: Utility Markers
Competency 1.18.1: Discuss the use of utility markers.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension

6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender

12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and

society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 18: Utility Markers
Competency 1.18.2: Explain why utility owners should be contacted before digging work begins.

English/Language Arts

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.1.3 Differentiate between accurate and inaccurate information

6.1.4 Use information from several sources

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.4 Use graphic organizers and summarizing to enhance comprehension

6.2.5 Use prior knowledge and experiences to aid text comprehension

6.2.6 Read to be informed, entertained, and persuaded

6.2.7 Read to develop life-long reading skills and habits

6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

6.4.5 Use appropriate volume and eye contact when speaking

6.5.1 Identify existing and developing media

6.5.2 Use technology according to the district's appropriate use policy

7.1.1 Generate and evaluate questions relevant to research topic

7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information

7.1.3 Question the accuracy and relevance of information

7.1.5 Present research findings, including information and evidence from a variety of sources

7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts

7.2.5 Read to be informed, entertained, and persuade

7.2.6 Read to develop life-long reading skills and habits

7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms,

prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection

9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs,

materials and environmental factors)

6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)

6.7.2 Explain how recycling and conservation affect populations, resources, and the environment

6.8.2 Identify scientific advances that have resulted in new ideas and further advance

7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)

7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)

7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)

7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 18: Utility Markers
Competency 1.18.3: Discuss the color coding used in one's area.

<u>English/Language Arts</u>

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for

personal recreation, to model forms of writing

8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology

8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.5.1 Identify existing and developing media

8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

9.1.1 Choose a broad topic, state the problem, or question

9.2.6 Demonstrate oral reading fluency

9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary

9.4.1 Analyze the audience and adjust message and wording to suit purpose

9.4.2 Use visual aides effectively in oral presentations

9.4.3 Use notes and manuscripts to make oral presentations

9.4.4 Engage in a group discussion

9.4.5 Use critical listening skills; i.e., reflection

9.5.1 Identify existing and developing media

9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

10.1.1 Form questions to focus research

10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

10.4.1 Analyze the audience and adjust message and wording to suit the purpose

10.4.2 Use appropriate body language in oral presentations

10.4.3 Formulate questions in response to a verbal message

10.5.1 Identify existing and developing media

10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.2.3 Analyze details, facts, and concepts from nonfiction genres

11.2.5 Locate ambiguities in written text

11.2.6 Apply prior knowledge of content to interpret meaning of text

11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

11.4.1 Analyze the audience and adjust message and wording to suit the purpose

11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral

interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 19: Signals
Competency 1.19.1: Discuss signal talk.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information

7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management,

resource management)

Standard 1: Basic Safety
Topic 19: Signals
Competency 1.19.2: Discuss company- and task-specific signals used on job sites.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages

8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media

10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels,

water, soil, metals)

7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 20: Materials Handling and Storage
Competency 1.20.1: Define materials handling.

<u>English/Language Arts</u>

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.1.3 Differentiate between accurate and inaccurate information

6.1.4 Use information from several sources

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.4 Use graphic organizers and summarizing to enhance comprehension

6.2.5 Use prior knowledge and experiences to aid text comprehension

6.2.6 Read to be informed, entertained, and persuaded

6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and

demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.5.1 Identify existing and developing media

8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

9.1.1 Choose a broad topic, state the problem, or question

9.2.6 Demonstrate oral reading fluency

9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary

9.4.1 Analyze the audience and adjust message and wording to suit purpose

9.4.2 Use visual aides effectively in oral presentations

9.4.3 Use notes and manuscripts to make oral presentations

9.4.4 Engage in a group discussion

9.4.5 Use critical listening skills; i.e., reflection

9.5.1 Identify existing and developing media

9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

10.1.1 Form questions to focus research

10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

10.4.1 Analyze the audience and adjust message and wording to suit the purpose

10.4.2 Use appropriate body language in oral presentations

10.4.3 Formulate questions in response to a verbal message

10.5.1 Identify existing and developing media

10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.2.3 Analyze details, facts, and concepts from nonfiction genres

11.2.5 Locate ambiguities in written text

11.2.6 Apply prior knowledge of content to interpret meaning of text

11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

11.4.1 Analyze the audience and adjust message and wording to suit the purpose

11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

11.5.1 Identify existing and developing media

11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.6.4 Identify emotionally charged language

12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

12.2.8 Use technical language/jargon to decipher meaning

12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender

12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations

12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
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11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and

number of animals in a feedlot versus water supply)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 20: Materials Handling and Storage
Competency 1.20.2: Explain the difference between manual and mechanical materials handling.

English/Language Arts

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.1.3 Differentiate between accurate and inaccurate information

6.1.4 Use information from several sources

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.4 Use graphic organizers and summarizing to enhance comprehension

6.2.5 Use prior knowledge and experiences to aid text comprehension

6.2.6 Read to be informed, entertained, and persuaded

6.2.7 Read to develop life-long reading skills and habits

6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

6.4.5 Use appropriate volume and eye contact when speaking

6.5.1 Identify existing and developing media

6.5.2 Use technology according to the district's appropriate use policy

7.1.1 Generate and evaluate questions relevant to research topic

7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information

7.1.3 Question the accuracy and relevance of information

7.1.5 Present research findings, including information and evidence from a variety of sources

7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts

7.2.5 Read to be informed, entertained, and persuade

7.2.6 Read to develop life-long reading skills and habits

7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and

make sense of text

7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
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9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics,

visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g.,

floods, storms, hurricanes, volcanoes, earthquakes)

6.7.2 Explain how recycling and conservation affect populations, resources, and the environment

6.8.2 Identify scientific advances that have resulted in new ideas and further advance

7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)

7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)

7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)

7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 21: Mobile and Heavy Equipment
Competency 1.21.1: Define mobile equipment and heavy equipment.

English/Language Arts

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.1.3 Differentiate between accurate and inaccurate information

6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms,

prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology

8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.5.1 Identify existing and developing media

8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

9.1.1 Choose a broad topic, state the problem, or question

9.2.6 Demonstrate oral reading fluency

9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary

9.4.1 Analyze the audience and adjust message and wording to suit purpose

9.4.2 Use visual aides effectively in oral presentations

9.4.3 Use notes and manuscripts to make oral presentations

9.4.4 Engage in a group discussion

9.4.5 Use critical listening skills; i.e., reflection

9.5.1 Identify existing and developing media

9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

10.1.1 Form questions to focus research

10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

10.4.1 Analyze the audience and adjust message and wording to suit the purpose

10.4.2 Use appropriate body language in oral presentations

10.4.3 Formulate questions in response to a verbal message

10.5.1 Identify existing and developing media

10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.2.3 Analyze details, facts, and concepts from nonfiction genres

11.2.5 Locate ambiguities in written text

11.2.6 Apply prior knowledge of content to interpret meaning of text

11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

11.4.1 Analyze the audience and adjust message and wording to suit the purpose

11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

11.5.1 Identify existing and developing media

11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 21: Mobile and Heavy Equipment
Competency 1.21.2: Identify that special training and authorization are mandatory for operating mobile and heavy equipment.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information

7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model

forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
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11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management,

resource management)

Standard 1: Basic Safety
Topic 21: Mobile and Heavy Equipment
Competency 1.21.3: Discuss the general guidelines for the operation of mobile and heavy equipment.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media

7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
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11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)

7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 21: Mobile and Heavy Equipment
Competency 1.21.4: Discuss the safety guidelines for operating and working around heavy equipment.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension

6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to

inform, demonstrate, entertain, or persuade

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.5.1 Identify existing and developing media

8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

9.1.1 Choose a broad topic, state the problem, or question

9.2.6 Demonstrate oral reading fluency

9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary

9.4.1 Analyze the audience and adjust message and wording to suit purpose

9.4.2 Use visual aides effectively in oral presentations

9.4.3 Use notes and manuscripts to make oral presentations

9.4.4 Engage in a group discussion

9.4.5 Use critical listening skills; i.e., reflection

9.5.1 Identify existing and developing media

9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

10.1.1 Form questions to focus research

10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

10.4.1 Analyze the audience and adjust message and wording to suit the purpose

10.4.2 Use appropriate body language in oral presentations

10.4.3 Formulate questions in response to a verbal message

10.5.1 Identify existing and developing media

10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.2.3 Analyze details, facts, and concepts from nonfiction genres

11.2.5 Locate ambiguities in written text

11.2.6 Apply prior knowledge of content to interpret meaning of text

11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

11.4.1 Analyze the audience and adjust message and wording to suit the purpose

11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

11.5.1 Identify existing and developing media

11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.6.4 Identify emotionally charged language

12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

12.2.8 Use technical language/jargon to decipher meaning

12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 21: Mobile and Heavy Equipment
Competency 1.21.5: Discuss stability control as it relates to heavy and mobile equipment.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms,

prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection

9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs,

materials and environmental factors)

6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)

6.7.2 Explain how recycling and conservation affect populations, resources, and the environment

6.8.2 Identify scientific advances that have resulted in new ideas and further advance

7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)

7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)

7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)

7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.5 Identify the reactants and products in a chemical reaction

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11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 21: Mobile and Heavy Equipment
Competency 1.21.6: Discuss the safety guidelines relevant to trucks, cars, front-end loaders, bulldozers, forklifts, and any other heavy or mobile equipment frequently used on job sites.

<u>English/Language Arts</u>

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
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9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
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9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
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10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
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11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose

11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
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12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
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12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
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12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
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7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural

disasters)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 22: Cranes, Hoists, and Lifting Devices
Competency 1.22.1: Explain that crane operations have very specific usage and inspection requirements, safety guidelines, and equipment.

English/Language Arts

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.1.3 Differentiate between accurate and inaccurate information

6.1.4 Use information from several sources

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.4 Use graphic organizers and summarizing to enhance comprehension

6.2.5 Use prior knowledge and experiences to aid text comprehension

6.2.6 Read to be informed, entertained, and persuaded

6.2.7 Read to develop life-long reading skills and habits

6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

6.4.5 Use appropriate volume and eye contact when speaking

6.5.1 Identify existing and developing media

6.5.2 Use technology according to the district's appropriate use policy

7.1.1 Generate and evaluate questions relevant to research topic

7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question

9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural

decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 22: Cranes, Hoists, and Lifting Devices
Competency 1.22.2: Discuss the guidelines for safe crane operations.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations

7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations

10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism,

battery)

7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)

7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 22: Cranes, Hoists, and Lifting Devices
Competency 1.22.3: Explain the safety guidelines for safe mechanical materials handling.

English/Language Arts

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.1.3 Differentiate between accurate and inaccurate information

6.1.4 Use information from several sources

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.4 Use graphic organizers and summarizing to enhance comprehension

6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to

inform, demonstrate, entertain, or persuade

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.5.1 Identify existing and developing media

8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

9.1.1 Choose a broad topic, state the problem, or question

9.2.6 Demonstrate oral reading fluency

9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary

9.4.1 Analyze the audience and adjust message and wording to suit purpose

9.4.2 Use visual aides effectively in oral presentations

9.4.3 Use notes and manuscripts to make oral presentations

9.4.4 Engage in a group discussion

9.4.5 Use critical listening skills; i.e., reflection

9.5.1 Identify existing and developing media

9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

10.1.1 Form questions to focus research

10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

10.4.1 Analyze the audience and adjust message and wording to suit the purpose

10.4.2 Use appropriate body language in oral presentations

10.4.3 Formulate questions in response to a verbal message

10.5.1 Identify existing and developing media

10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.2.3 Analyze details, facts, and concepts from nonfiction genres

11.2.5 Locate ambiguities in written text

11.2.6 Apply prior knowledge of content to interpret meaning of text

11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

11.4.1 Analyze the audience and adjust message and wording to suit the purpose

11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

11.5.1 Identify existing and developing media

11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.6.4 Identify emotionally charged language

12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

12.2.8 Use technical language/jargon to decipher meaning

12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 23: Rigging
Competency 1.23.1: Define rigging.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms,

prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection

9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs,

materials and environmental factors)

6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)

6.7.2 Explain how recycling and conservation affect populations, resources, and the environment

6.8.2 Identify scientific advances that have resulted in new ideas and further advance

7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)

7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)

7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)

7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 23: Rigging
Competency 1.23.2: Explain the safety guidelines for rigging operations.

<u>English/Language Arts</u>

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for

personal recreation, to model forms of writing

8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology

8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.5.1 Identify existing and developing media

8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

9.1.1 Choose a broad topic, state the problem, or question

9.2.6 Demonstrate oral reading fluency

9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary

9.4.1 Analyze the audience and adjust message and wording to suit purpose

9.4.2 Use visual aides effectively in oral presentations

9.4.3 Use notes and manuscripts to make oral presentations

9.4.4 Engage in a group discussion

9.4.5 Use critical listening skills; i.e., reflection

9.5.1 Identify existing and developing media

9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

10.1.1 Form questions to focus research

10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

10.4.1 Analyze the audience and adjust message and wording to suit the purpose

10.4.2 Use appropriate body language in oral presentations

10.4.3 Formulate questions in response to a verbal message

10.5.1 Identify existing and developing media

10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.2.3 Analyze details, facts, and concepts from nonfiction genres

11.2.5 Locate ambiguities in written text

11.2.6 Apply prior knowledge of content to interpret meaning of text

11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

11.4.1 Analyze the audience and adjust message and wording to suit the purpose

11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral

interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 23: Rigging
Competency 1.23.3: Discuss proper methods of rigging.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information

7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 23: Rigging
Competency 1.23.4: Identify the various components of a rigging operation in use.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer

catalogs, magazines, newspapers, and primary sources

8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources

8.1.4 Use information from multiple sources when presenting research findings to defined audiences

8.2.2 Use prior knowledge and experiences to aid text comprehension

8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing

8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology

8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.5.1 Identify existing and developing media

8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

9.1.1 Choose a broad topic, state the problem, or question

9.2.6 Demonstrate oral reading fluency

9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary

9.4.1 Analyze the audience and adjust message and wording to suit purpose

9.4.2 Use visual aides effectively in oral presentations

9.4.3 Use notes and manuscripts to make oral presentations

9.4.4 Engage in a group discussion

9.4.5 Use critical listening skills; i.e., reflection

9.5.1 Identify existing and developing media

9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

10.1.1 Form questions to focus research

10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

10.4.1 Analyze the audience and adjust message and wording to suit the purpose

10.4.2 Use appropriate body language in oral presentations

10.4.3 Formulate questions in response to a verbal message

10.5.1 Identify existing and developing media

10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the

quality of life

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 23: Rigging
Competency 1.23.5: Discuss hooks, shackles, beam clamps, chain falls, hoists, and slings.

<u>English/Language Arts</u>

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.1.3 Differentiate between accurate and inaccurate information

6.1.4 Use information from several sources

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.4 Use graphic organizers and summarizing to enhance comprehension

6.2.5 Use prior knowledge and experiences to aid text comprehension

6.2.6 Read to be informed, entertained, and persuaded

6.2.7 Read to develop life-long reading skills and habits

6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to

inform, demonstrate, entertain, or persuade

6.4.5 Use appropriate volume and eye contact when speaking

6.5.1 Identify existing and developing media

6.5.2 Use technology according to the district's appropriate use policy

7.1.1 Generate and evaluate questions relevant to research topic

7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information

7.1.3 Question the accuracy and relevance of information

7.1.5 Present research findings, including information and evidence from a variety of sources

7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts

7.2.5 Read to be informed, entertained, and persuade

7.2.6 Read to develop life-long reading skills and habits

7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

7.4.4 Construct questions in response to a speaker

7.4.5 Speak to entertain an audience; e.g., story telling

7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations

7.5.1 Identify existing and developing media

7.5.3 Assess the relevancy and accuracy of information in media messages

8.1.1 Use questions to narrow research topic

8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources

8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources

8.1.4 Use information from multiple sources when presenting research findings to defined audiences

8.2.2 Use prior knowledge and experiences to aid text comprehension

8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing

8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology

8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral

presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land

reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 23: Rigging
Competency 1.23.6: Describe the individual functions of safety guidelines of hooks, shackles, beam clamps, chain falls, hoists, and slings.

English/Language Arts

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.1.3 Differentiate between accurate and inaccurate information

6.1.4 Use information from several sources

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.4 Use graphic organizers and summarizing to enhance comprehension

6.2.5 Use prior knowledge and experiences to aid text comprehension

6.2.6 Read to be informed, entertained, and persuaded

6.2.7 Read to develop life-long reading skills and habits

6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

6.4.5 Use appropriate volume and eye contact when speaking

6.5.1 Identify existing and developing media

6.5.2 Use technology according to the district's appropriate use policy

7.1.1 Generate and evaluate questions relevant to research topic

7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information

7.1.3 Question the accuracy and relevance of information

7.1.5 Present research findings, including information and evidence from a variety of sources

7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts

7.2.5 Read to be informed, entertained, and persuade

7.2.6 Read to develop life-long reading skills and habits

7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
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11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)

6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 23: Rigging
Competency 1.23.7: Explain why hand signals are used.

English/Language Arts
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids –

dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology

8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.5.1 Identify existing and developing media

8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

9.1.1 Choose a broad topic, state the problem, or question

9.2.6 Demonstrate oral reading fluency

9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary

9.4.1 Analyze the audience and adjust message and wording to suit purpose

9.4.2 Use visual aides effectively in oral presentations

9.4.3 Use notes and manuscripts to make oral presentations

9.4.4 Engage in a group discussion

9.4.5 Use critical listening skills; i.e., reflection

9.5.1 Identify existing and developing media

9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

10.1.1 Form questions to focus research

10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

10.4.1 Analyze the audience and adjust message and wording to suit the purpose

10.4.2 Use appropriate body language in oral presentations

10.4.3 Formulate questions in response to a verbal message

10.5.1 Identify existing and developing media

10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.2.3 Analyze details, facts, and concepts from nonfiction genres

11.2.5 Locate ambiguities in written text

11.2.6 Apply prior knowledge of content to interpret meaning of text

11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

11.4.1 Analyze the audience and adjust message and wording to suit the purpose

11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

11.5.1 Identify existing and developing media

11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics,

visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Topic 23: Rigging
Competency 1.23.8: Demonstrate some common rigging hand signals.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies,

including context clues, to enhance understanding and aid comprehension of the meaning of texts

7.2.5 Read to be informed, entertained, and persuade

7.2.6 Read to develop life-long reading skills and habits

7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

7.4.4 Construct questions in response to a speaker

7.4.5 Speak to entertain an audience; e.g., story telling

7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations

7.5.1 Identify existing and developing media

7.5.3 Assess the relevancy and accuracy of information in media messages

8.1.1 Use questions to narrow research topic

8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources

8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources

8.1.4 Use information from multiple sources when presenting research findings to defined audiences

8.2.2 Use prior knowledge and experiences to aid text comprehension

8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing

8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology

8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.5.1 Identify existing and developing media

8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

9.1.1 Choose a broad topic, state the problem, or question

9.2.6 Demonstrate oral reading fluency

9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary

9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
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10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Standard 24: Emergency Response
Competency 1.24.1: Discuss the importance of knowing a company's emergency response procedures.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages

8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
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12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
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water, soil, metals)

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7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

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11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Standard 24: Emergency Response
Competency 1.24.2: Identify whom to report accidents, incidents, and emergencies; where to go in case of an emergency; where to go for medical assistance; how to locate the nearest escape route; and how evacuations are announced.

<u>English/Language Arts</u>

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.1.3 Differentiate between accurate and inaccurate information

6.1.4 Use information from several sources

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.4 Use graphic organizers and summarizing to enhance comprehension

6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
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7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
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8.5.1 Identify existing and developing media

8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

9.1.1 Choose a broad topic, state the problem, or question

9.2.6 Demonstrate oral reading fluency

9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

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11.4.1 Analyze the audience and adjust message and wording to suit the purpose

11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

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11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.6.4 Identify emotionally charged language

12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

12.2.8 Use technical language/jargon to decipher meaning

12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Standard 24: Emergency Response
Competency 1.24.3: Explain what a company-specific employee emergency action plan is.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms,

prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection

9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs,

materials and environmental factors)

6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)

6.7.2 Explain how recycling and conservation affect populations, resources, and the environment

6.8.2 Identify scientific advances that have resulted in new ideas and further advance

7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)

7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)

7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)

7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Standard 24: Emergency Response
Competency 1.24.4: Explain the roles of emergency-response team members.

English/Language Arts

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for

personal recreation, to model forms of writing

8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology

8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.5.1 Identify existing and developing media

8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

9.1.1 Choose a broad topic, state the problem, or question

9.2.6 Demonstrate oral reading fluency

9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary

9.4.1 Analyze the audience and adjust message and wording to suit purpose

9.4.2 Use visual aides effectively in oral presentations

9.4.3 Use notes and manuscripts to make oral presentations

9.4.4 Engage in a group discussion

9.4.5 Use critical listening skills; i.e., reflection

9.5.1 Identify existing and developing media

9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

10.1.1 Form questions to focus research

10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

10.4.1 Analyze the audience and adjust message and wording to suit the purpose

10.4.2 Use appropriate body language in oral presentations

10.4.3 Formulate questions in response to a verbal message

10.5.1 Identify existing and developing media

10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.2.3 Analyze details, facts, and concepts from nonfiction genres

11.2.5 Locate ambiguities in written text

11.2.6 Apply prior knowledge of content to interpret meaning of text

11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

11.4.1 Analyze the audience and adjust message and wording to suit the purpose

11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral

interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
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11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Standard 24: Emergency Response
Competency 1.24.5: Discuss what to do in different types of emergencies.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information

7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
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11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Standard 25: Specialty Work
Competency 1.25.1: Discuss the types of specialty work done on the job site.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic

8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics,

visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)

7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Standard 25: Specialty Work
Competency 1.25.2: Discuss the safety guidelines for steel erection and concrete work.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits

6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while

speaking

12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches

12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system

6.3.2 Use simple machines to change forces

6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)

6.5.1 Identify adverse weather conditions and how humans prepare for them

6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)

6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)

6.7.2 Explain how recycling and conservation affect populations, resources, and the environment

6.8.2 Identify scientific advances that have resulted in new ideas and further advance

7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)

7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)

7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)

7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Standard 25: Specialty Work
Competency 1.25.3: Discuss the PPE needed for concrete work.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
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11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)

6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Standard 25: Specialty Work
Competency 1.25.4: Explain what a zero-injury work environment is.

English/Language Arts
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids –

dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology

8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.5.1 Identify existing and developing media

8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

9.1.1 Choose a broad topic, state the problem, or question

9.2.6 Demonstrate oral reading fluency

9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary

9.4.1 Analyze the audience and adjust message and wording to suit purpose

9.4.2 Use visual aides effectively in oral presentations

9.4.3 Use notes and manuscripts to make oral presentations

9.4.4 Engage in a group discussion

9.4.5 Use critical listening skills; i.e., reflection

9.5.1 Identify existing and developing media

9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

10.1.1 Form questions to focus research

10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

10.4.1 Analyze the audience and adjust message and wording to suit the purpose

10.4.2 Use appropriate body language in oral presentations

10.4.3 Formulate questions in response to a verbal message

10.5.1 Identify existing and developing media

10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.2.3 Analyze details, facts, and concepts from nonfiction genres

11.2.5 Locate ambiguities in written text

11.2.6 Apply prior knowledge of content to interpret meaning of text

11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

11.4.1 Analyze the audience and adjust message and wording to suit the purpose

11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

11.5.1 Identify existing and developing media

11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics,

visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 1: Basic Safety
Standard 25: Specialty Work
Competency 1.25.5: Identify that it is up to each individual on the job site to make it a safe place to work.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.1 Identify existing and developing media
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources

7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.2.6 Read to develop life-long reading skills and habits
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages
12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches
12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
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7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.5 Identify the reactants and products in a chemical reaction
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11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
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Standard 1: Basic Safety
Standard 25: Specialty Work
Competency 1.25.6: Identify that each worker has a responsibility to do his/her best to keep others and themselves safe.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
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6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
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7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
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7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
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Mathematics

- No existing North Dakota Mathematics standards

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Standard 1: Basic Safety
Standard 25: Specialty Work
Competency 1.25.7: Discuss the ten basic rules of safety.

<u>English/Language Arts</u>
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
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6.1.4 Use information from several sources
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6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.2.7 Read to develop life-long reading skills and habits

6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
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7.4.4 Construct questions in response to a speaker
7.4.5 Speak to entertain an audience; e.g., story telling
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.1 Identify existing and developing media
7.5.3 Assess the relevancy and accuracy of information in media messages
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.2.10 Build vocabulary; e.g., Greek and Latin roots, dictionary information, content area terminology
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.5.1 Identify existing and developing media
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
9.1.1 Choose a broad topic, state the problem, or question
9.2.6 Demonstrate oral reading fluency
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
9.5.1 Identify existing and developing media
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
10.1.1 Form questions to focus research
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.4.3 Formulate questions in response to a verbal message
10.5.1 Identify existing and developing media
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.1 Identify existing and developing media
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.1 Evaluate audience based on social characteristics, e.g., religion, culture, and gender
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while

speaking

12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

12.4.5 Use oral composition techniques to perform speeches such as memorized speeches, impromptu and extemporaneous, persuasive/argumentative, and expository speeches

12.5.1 Identify existing and developing media

Mathematics

- No existing North Dakota Mathematics standards

Science

6.1.3 Explain the connection between cause and effect in a system

6.3.2 Use simple machines to change forces

6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)

6.5.1 Identify adverse weather conditions and how humans prepare for them

6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)

6.7.1 Explain how natural hazards affect populations, resources, and the environment (e.g., floods, storms, hurricanes, volcanoes, earthquakes)

6.7.2 Explain how recycling and conservation affect populations, resources, and the environment

6.8.2 Identify scientific advances that have resulted in new ideas and further advance

7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)

7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)

7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)

7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

8.7.1 Explain the interaction of science and technology with social issues (e.g., mining, natural disasters)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

11-12.7.1 Explain the impact of environmental laws and policies on the environment and society (e.g., waste/pollutants from industry, carbon dioxide emissions, location and number of animals in a feedlot versus water supply)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Construction Core Crosswalk

Standard 2: Introduction to Construction Math
Topic 1: Whole Numbers - Add, subtract, multiply, and divide whole numbers, with and without a calculator.
Competency 2.1.1: List the types of mathematical procedures that trainees will use in the construction industry.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.3 Generate and revise predictions to aid comprehension and understanding of the meaning of texts
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.1.1 Use questions to narrow research topic
8.2.2 Use prior knowledge and experiences to aid text comprehension

8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.1.7 Identify and avoid plagiarism
9.1.8 Use primary and secondary sources
9.1.9 Use graphic organizer
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.5 Organize information from a variety of sources into a unified whole
11.1.1 Research topics independently using appropriate sources
11.1.2 Evaluate and incorporate information from primary sources; e.g., interviews and surveys
11.1.4 Verify the quality, accuracy, and usefulness of information
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
12.1.2 Plan a research strategy
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

6.1.6 Use rules to determine divisibility by 2, 3, 5, 6, 9, and 10
6.1.8 Identify the uses of the commutative and associative properties of addition and multiplication; e.g., grouping numbers to make addition or multiplication easier
6.1.9 Use order of operations; i.e., multiplication, division, addition and subtraction, to simplify numeric expressions
6.1.12 Express an exponent in standard form
6.1.13 Use problem solving strategies to solve and verify the results of problems
6.2.1 Identify relationships between pairs of angles; i.e., adjacent, vertical, complementary, and supplementary
6.2.2 Identify polygons; i.e., triangle, rectangle, square, rhombus, parallelogram, trapezoid, pentagon, hexagon, octagon
6.2.3 Describe the characteristics of a right triangle

6.4.1 Measure length to the nearest sixteenth of an inch
6.4.2 Select an appropriate unit of measure; e.g., What unit do you use to measure a person's height?
6.4.4 Distinguish among perimeter, area, surface area, and volume
6.4.5 Select appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
6.4.6 Use formulas to determine the circumference and area of circles and the perimeter and area of triangles and parallelograms
6.4.7 Use area formulas to determine the surface area of right prisms and square pyramids
6.4.8 Use formulas to determine the volume of rectangular prisms
7.1.1 Use ratios and proportions to represent relationships
7.1.2 Explain and use percents greater than 100
7.1.3 Use prime factorization to determine the greatest common factor and least common multiple
7.1.4 Use integers to represent and compare quantities
7.1.6 Use order of operations (i.e., parentheses and operations) to simplify numeric expressions
7.1.10 Use proportions to solve problems
7.2.1 Make observations about relationships between two- and three-dimensional figures; e.g., a cube is made with six squares
7.2.2 Classify triangles based on side and angle measurements; i.e., scalene, isosceles, equilateral, acute, obtuse, and right
7.4.1 Estimate a measurement to the degree of precision that the tool provides
7.4.3 Select the appropriate measure of perimeter, area, surface area, or volume to solve a problem
7.4.4 Select and use appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
7.4.5 Solve problems involving scale factors, using ratio and proportion
7.4.6 Use formulas to determine the perimeter and area of trapezoids
7.4.7 Use area formulas to determine the surface area of right cylinders
7.4.8 Use formulas to determine the volume of right cylinders
8.1.7 Add, subtract, multiply, and divide integers
8.1.8 Select and use a computational technique (e.g., mental calculation, paper-and-pencil, technology) to solve problems
8.1.9 Determine when an estimate is sufficient and an exact answer is needed in problem situations
8.2.4 Apply the Pythagorean Theorem to problems involving right triangles
8.4.3 Use formulas to determine the surface area and volume of right cones and spheres
9-10.1.8 Apply estimation skills to predict realistic solutions to problems
9-10.1.9 Select and use a computational technique (i.e., mental calculation, paper-and-pencil, or technology) to solve problems involving real numbers
9-101.1.10 Explain the reasonableness of a problem's solution and the process used to obtain it
9-10.2.3 Use trigonometric relationships and the Pythagorean Theorem to determine side lengths and angle measures in right triangles
9-10.4.3 Use approximations to compare the standard and metric systems of measurement; e.g., a five-kilometer race is about three miles long
9-10.4.4 Given a conversion factor, convert between standard and metric measurements

9-10.4.5 Use methods necessary to achieve a specified degree of precision and accuracy (i.e., appropriate number of significant digits) in measurement situations
9-10.4.6 Employ estimation techniques to evaluate reasonableness of results in measurement situations
9-10.4.8 Given a formula list, compute the area of a regular polygon
9-10.4.10 Apply indirect measurement techniques to solve problems involving irregular shapes or inaccessible objects; e.g., calculate the distance across a lake, triangulate an irregular region to find its approximate area
11-12.1.7 Add, subtract, and multiply complex numbers

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the

quality of life

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.

8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems

8.2.2 Use evidence to generate descriptions, explanations, predictions, and models

8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data

8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)

8.3.2 Explain the relationship between phases of matter and temperature

8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects

8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.

9-10.1.1 Explain how models can be used to illustrate scientific principles

9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.3 Identify questions and concepts that guide scientific investigations

9-10.2.4 Formulate a testable hypothesis for a simple investigation

9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment

9-10.2.6 Design and conduct a guided investigation

9-10.2.7 Maintain clear and accurate records of scientific investigations

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.3.10 Describe the differences between series and parallel circuits

9-10.4.10 Explain the energy and organization related to trophic pyramids

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)

9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition

9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)
11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations
11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
11-12.2.5 Use technology and mathematics to improve investigations and communications
11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 1: Whole Numbers - Add, subtract, multiply, and divide whole numbers, with and without a calculator.
Competency 2.1.2: Explain how to count out the wrenches needed at the construction site.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work

6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
10.1.1 Form questions to focus research
10.1.4 Use relevant information
11.1.1 Research topics independently using appropriate sources
11.1.4 Verify the quality, accuracy, and usefulness of information
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning

Mathematics

6.1.13 Use problem solving strategies to solve and verify the results of problems
7.1.4 Use integers to represent and compare quantities
7.1.10 Use proportions to solve problems
8.1.4 Represent large and small numbers using scientific notation
8.1.9 Determine when an estimate is sufficient and an exact answer is needed in problem situations
9-10.1.8 Apply estimation skills to predict realistic solutions to problems
9-10.1.9 Select and use a computational technique (i.e., mental calculation, paper-and-pencil, or technology) to solve problems involving real numbers
9-10.1.10 Explain the reasonableness of a problem's solution and the process used to obtain it

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
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6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
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6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
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7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.
8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
8.3.2 Explain the relationship between phases of matter and temperature
8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects
8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles,

apron, eye wash station)

9-10.2.3 Identify questions and concepts that guide scientific investigations

9-10.2.4 Formulate a testable hypothesis for a simple investigation

9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment

9-10.2.6 Design and conduct a guided investigation

9-10.2.7 Maintain clear and accurate records of scientific investigations

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.3.10 Describe the differences between series and parallel circuits

9-10.4.10 Explain the energy and organization related to trophic pyramids

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9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)

9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition

9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)

11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)

11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis

11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data

11-12.2.5 Use technology and mathematics to improve investigations and communications

11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)

11-12.2.7 Design and conduct an independent investigation

11-12.2.8 Communicate and defend a scientific argument

11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles

11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes,

temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 1: Whole Numbers - Add, subtract, multiply, and divide whole numbers, with and without a calculator.
Competency 2.1.3: Explain that whole numbers are numbers without fractions or decimals.

English/Language Arts
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
9.1.1 Choose a broad topic, state the problem, or question
10.1.1 Form questions to focus research
11.1.4 Verify the quality, accuracy, and usefulness of information

Mathematics
6.1.6 Use rules to determine divisibility by 2, 3, 5, 6, 9, and 10
6.1.8 Identify the uses of the commutative and associative properties of addition and multiplication; e.g., grouping numbers to make addition or multiplication easier
6.1.9 Use order of operations; i.e., multiplication, division, addition and subtraction, to simplify numeric expressions
6.1.12 Express an exponent in standard form
6.1.13 Use problem solving strategies to solve and verify the results of problems
6.2.1 Identify relationships between pairs of angles; i.e., adjacent, vertical, complementary, and supplementary

6.2.2 Identify polygons; i.e., triangle, rectangle, square, rhombus, parallelogram, trapezoid, pentagon, hexagon, octagon
6.2.3 Describe the characteristics of a right triangle
6.4.1 Measure length to the nearest sixteenth of an inch
6.4.2 Select an appropriate unit of measure; e.g., What unit do you use to measure a person's height?
6.4.4 Distinguish among perimeter, area, surface area, and volume
6.4.5 Select appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
6.4.6 Use formulas to determine the circumference and area of circles and the perimeter and area of triangles and parallelograms
6.4.7 Use area formulas to determine the surface area of right prisms and square pyramids
6.4.8 Use formulas to determine the volume of rectangular prisms
7.1.1 Use ratios and proportions to represent relationships
7.1.2 Explain and use percents greater than 100
7.1.3 Use prime factorization to determine the greatest common factor and least common multiple
7.1.4 Use integers to represent and compare quantities
7.1.6 Use order of operations (i.e., parentheses and operations) to simplify numeric expressions
7.1.10 Use proportions to solve problems
7.2.1 Make observations about relationships between two- and three-dimensional figures; e.g., a cube is made with six squares
7.2.2 Classify triangles based on side and angle measurements; i.e., scalene, isosceles, equilateral, acute, obtuse, and right
7.4.1 Estimate a measurement to the degree of precision that the tool provides
7.4.3 Select the appropriate measure of perimeter, area, surface area, or volume to solve a problem
7.4.4 Select and use appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
7.4.5 Solve problems involving scale factors, using ratio and proportion
7.4.6 Use formulas to determine the perimeter and area of trapezoids
7.4.7 Use area formulas to determine the surface area of right cylinders
7.4.8 Use formulas to determine the volume of right cylinders
8.1.7 Add, subtract, multiply, and divide integers
8.1.8 Select and use a computational technique (e.g., mental calculation, paper-and-pencil, technology) to solve problems
8.1.9 Determine when an estimate is sufficient and an exact answer is needed in problem situations
8.2.4 Apply the Pythagorean Theorem to problems involving right triangles
8.4.3 Use formulas to determine the surface area and volume of right cones and spheres
9-10.1.8 Apply estimation skills to predict realistic solutions to problems
9-10.1.9 Select and use a computational technique (i.e., mental calculation, paper-and-pencil, or technology) to solve problems involving real numbers
9-101.1.10 Explain the reasonableness of a problem's solution and the process used to obtain it
9-10.2.3 Use trigonometric relationships and the Pythagorean Theorem to determine side lengths and angle measures in right triangles

9-10.4.3 Use approximations to compare the standard and metric systems of measurement; e.g., a five-kilometer race is about three miles long
9-10.4.4 Given a conversion factor, convert between standard and metric measurements
9-10.4.5 Use methods necessary to achieve a specified degree of precision and accuracy (i.e., appropriate number of significant digits) in measurement situations
9-10.4.6 Employ estimation techniques to evaluate reasonableness of results in measurement situations
9-10.4.8 Given a formula list, compute the area of a regular polygon
9-10.4.10 Apply indirect measurement techniques to solve problems involving irregular shapes or inaccessible objects; e.g., calculate the distance across a lake, triangulate an irregular region to find its approximate area
11-12.1.7 Add, subtract, and multiply complex numbers

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)

7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.
8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
8.3.2 Explain the relationship between phases of matter and temperature
8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects
8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.4 Formulate a testable hypothesis for a simple investigation
9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment
9-10.2.6 Design and conduct a guided investigation
9-10.2.7 Maintain clear and accurate records of scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.3.10 Describe the differences between series and parallel circuits
9-10.4.10 Explain the energy and organization related to trophic pyramids
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
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9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and

hydrogen fuels) may impact society and the environment

9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition

9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)

11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)

11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis

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Standard 2: Introduction to Construction Math
Topic 1: Whole Numbers - Add, subtract, multiply, and divide whole numbers, with and without a calculator.
Competency 2.1.4: Explain each whole number's place value.

<u>English/Language Arts</u>

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.4.5 Use appropriate volume and eye contact when speaking

7.1.1 Generate and evaluate questions relevant to research topic

7.1.3 Question the accuracy and relevance of information

7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question

Mathematics

7.1.4 Use integers to represent and compare quantities
7.1.6 Use order of operations (i.e., parentheses and operations) to simplify numeric expressions
8.1.8 Select and use a computational technique (e.g., mental calculation, paper-and-pencil, technology) to solve problems

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
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6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
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9-10.1.1 Explain how models can be used to illustrate scientific principles

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9-10.2.3 Identify questions and concepts that guide scientific investigations

9-10.2.4 Formulate a testable hypothesis for a simple investigation

9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment

9-10.2.6 Design and conduct a guided investigation

9-10.2.7 Maintain clear and accurate records of scientific investigations

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)

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Standard 2: Introduction to Construction Math
Topic 1: Whole Numbers - Add, subtract, multiply, and divide whole numbers, with and without a calculator.
Competency 2.1.5: Explain that negative numbers are used to represent values less than zero.

English/Language Arts
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
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8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.4.4 Engage in a group discussion
10.4.3 Formulate questions in response to a verbal message

Mathematics

- No existing North Dakota Mathematics standard

Science

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Standard 2: Introduction to Construction Math
Topic 1: Whole Numbers - Add, subtract, multiply, and divide whole numbers, with and without a calculator.
Competency 2.1.6: Explain how to add the values of two or more numbers to find the sum.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral

presentations
9.1.1 Choose a broad topic, state the problem, or question
9.4.4 Engage in a group discussion
10.4.3 Formulate questions in response to a verbal message

Mathematics

6.1.6 Use rules to determine divisibility by 2, 3, 5, 6, 9, and 10
6.1.8 Identify the uses of the commutative and associative properties of addition and multiplication; e.g., grouping numbers to make addition or multiplication easier
6.1.9 Use order of operations; i.e., multiplication, division, addition and subtraction, to simplify numeric expressions
6.1.12 Express an exponent in standard form
6.1.13 Use problem solving strategies to solve and verify the results of problems
6.2.1 Identify relationships between pairs of angles; i.e., adjacent, vertical, complementary, and supplementary
6.2.2 Identify polygons; i.e., triangle, rectangle, square, rhombus, parallelogram, trapezoid, pentagon, hexagon, octagon
6.2.3 Describe the characteristics of a right triangle
6.4.1 Measure length to the nearest sixteenth of an inch
6.4.2 Select an appropriate unit of measure; e.g., What unit do you use to measure a person's height?
6.4.4 Distinguish among perimeter, area, surface area, and volume
6.4.5 Select appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
6.4.6 Use formulas to determine the circumference and area of circles and the perimeter and area of triangles and parallelograms
6.4.7 Use area formulas to determine the surface area of right prisms and square pyramids
6.4.8 Use formulas to determine the volume of rectangular prisms
7.1.1 Use ratios and proportions to represent relationships
7.1.2 Explain and use percents greater than 100
7.1.3 Use prime factorization to determine the greatest common factor and least common multiple
7.1.4 Use integers to represent and compare quantities
7.1.6 Use order of operations (i.e., parentheses and operations) to simplify numeric expressions
7.1.10 Use proportions to solve problems
7.2.1 Make observations about relationships between two- and three-dimensional figures; e.g., a cube is made with six squares
7.2.2 Classify triangles based on side and angle measurements; i.e., scalene, isosceles, equilateral, acute, obtuse, and right
7.4.1 Estimate a measurement to the degree of precision that the tool provides
7.4.3 Select the appropriate measure of perimeter, area, surface area, or volume to solve a problem
7.4.4 Select and use appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
7.4.5 Solve problems involving scale factors, using ratio and proportion
7.4.6 Use formulas to determine the perimeter and area of trapezoids

7.4.7 Use area formulas to determine the surface area of right cylinders
7.4.8 Use formulas to determine the volume of right cylinders
8.1.7 Add, subtract, multiply, and divide integers
8.1.8 Select and use a computational technique (e.g., mental calculation, paper-and-pencil, technology) to solve problems
8.1.9 Determine when an estimate is sufficient and an exact answer is needed in problem situations
8.2.4 Apply the Pythagorean Theorem to problems involving right triangles
8.4.3 Use formulas to determine the surface area and volume of right cones and spheres
9-10.1.8 Apply estimation skills to predict realistic solutions to problems
9-10.1.9 Select and use a computational technique (i.e., mental calculation, paper-and-pencil, or technology) to solve problems involving real numbers
9-101.1.10 Explain the reasonableness of a problem's solution and the process used to obtain it
9-10.2.3 Use trigonometric relationships and the Pythagorean Theorem to determine side lengths and angle measures in right triangles
9-10.4.3 Use approximations to compare the standard and metric systems of measurement; e.g., a five-kilometer race is about three miles long
9-10.4.4 Given a conversion factor, convert between standard and metric measurements
9-10.4.5 Use methods necessary to achieve a specified degree of precision and accuracy (i.e., appropriate number of significant digits) in measurement situations
9-10.4.6 Employ estimation techniques to evaluate reasonableness of results in measurement situations
9-10.4.8 Given a formula list, compute the area of a regular polygon
9-10.4.10 Apply indirect measurement techniques to solve problems involving irregular shapes or inaccessible objects; e.g., calculate the distance across a lake, triangulate an irregular region to find its approximate area
11-12.1.7 Add, subtract, and multiply complex numbers

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs,

materials and environmental factors)

6.6.3 Explain the relationship between science and technology

6.7.2 Explain how recycling and conservation affect populations, resources, and the environment

6.8.2 Identify scientific advances that have resulted in new ideas and further advance

7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)

7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)

7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)

7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)

7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)

7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)

7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)

7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.

8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems

8.2.2 Use evidence to generate descriptions, explanations, predictions, and models

8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data

8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)

8.3.2 Explain the relationship between phases of matter and temperature

8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects

8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.

9-10.1.1 Explain how models can be used to illustrate scientific principles

9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.3 Identify questions and concepts that guide scientific investigations

9-10.2.4 Formulate a testable hypothesis for a simple investigation

9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment

9-10.2.6 Design and conduct a guided investigation

9-10.2.7 Maintain clear and accurate records of scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.3.10 Describe the differences between series and parallel circuits
9-10.4.10 Explain the energy and organization related to trophic pyramids
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)
9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition
9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)
11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations
11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
11-12.2.5 Use technology and mathematics to improve investigations and communications
11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving

technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 1: Whole Numbers - Add, subtract, multiply, and divide whole numbers, with and without a calculator.
Competency 2.1.7: Demonstrate how to subtract whole numbers.

English/Language Arts

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8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.4.3 Formulate questions in response to a verbal message

Mathematics

9-10.2.3 Use trigonometric relationships and the Pythagorean Theorem to determine side lengths and angle measures in right triangles

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
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6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
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8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
8.3.2 Explain the relationship between phases of matter and temperature
8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects
8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.
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9-10.2.7 Maintain clear and accurate records of scientific investigations
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Standard 2: Introduction to Construction Math
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Competency 2.1.8: Demonstrate how to multiply simple whole numbers.

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11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations
11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
11-12.2.5 Use technology and mathematics to improve investigations and communications
11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 1: Whole Numbers - Add, subtract, multiply, and divide whole numbers, with and without a calculator.
Competency 2.1.9: Solve multiplication problems using larger whole numbers.

<u>English/Language Arts</u>
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.4.3 Formulate questions in response to a verbal message

Mathematics

6.1.6 Use rules to determine divisibility by 2, 3, 5, 6, 9, and 10
6.1.8 Identify the uses of the commutative and associative properties of addition and multiplication; e.g., grouping numbers to make addition or multiplication easier
6.1.9 Use order of operations; i.e., multiplication, division, addition and subtraction, to simplify numeric expressions
6.1.12 Express an exponent in standard form
6.1.13 Use problem solving strategies to solve and verify the results of problems
6.2.1 Identify relationships between pairs of angles; i.e., adjacent, vertical, complementary, and supplementary
6.2.2 Identify polygons; i.e., triangle, rectangle, square, rhombus, parallelogram, trapezoid, pentagon, hexagon, octagon
6.2.3 Describe the characteristics of a right triangle
6.4.1 Measure length to the nearest sixteenth of an inch
6.4.2 Select an appropriate unit of measure; e.g., What unit do you use to measure a person's height?
6.4.4 Distinguish among perimeter, area, surface area, and volume
6.4.5 Select appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
6.4.6 Use formulas to determine the circumference and area of circles and the perimeter and area of triangles and parallelograms
6.4.7 Use area formulas to determine the surface area of right prisms and square pyramids
6.4.8 Use formulas to determine the volume of rectangular prisms
7.1.1 Use ratios and proportions to represent relationships
7.1.2 Explain and use percents greater than 100
7.1.3 Use prime factorization to determine the greatest common factor and least common multiple
7.1.4 Use integers to represent and compare quantities
7.1.6 Use order of operations (i.e., parentheses and operations) to simplify numeric expressions
7.1.10 Use proportions to solve problems
7.2.1 Make observations about relationships between two- and three-dimensional figures; e.g., a cube is made with six squares
7.2.2 Classify triangles based on side and angle measurements; i.e., scalene, isosceles, equilateral, acute, obtuse, and right
7.4.1 Estimate a measurement to the degree of precision that the tool provides
7.4.3 Select the appropriate measure of perimeter, area, surface area, or volume to solve a problem
7.4.4 Select and use appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
7.4.5 Solve problems involving scale factors, using ratio and proportion
7.4.6 Use formulas to determine the perimeter and area of trapezoids
7.4.7 Use area formulas to determine the surface area of right cylinders
7.4.8 Use formulas to determine the volume of right cylinders
8.1.7 Add, subtract, multiply, and divide integers
8.1.8 Select and use a computational technique (e.g., mental calculation, paper-and-pencil, technology) to solve problems

8.1.9 Determine when an estimate is sufficient and an exact answer is needed in problem situations
8.2.4 Apply the Pythagorean Theorem to problems involving right triangles
8.4.3 Use formulas to determine the surface area and volume of right cones and spheres
9-10.1.8 Apply estimation skills to predict realistic solutions to problems
9-10.1.9 Select and use a computational technique (i.e., mental calculation, paper-and-pencil, or technology) to solve problems involving real numbers
9-101.1.10 Explain the reasonableness of a problem's solution and the process used to obtain it
9-10.2.3 Use trigonometric relationships and the Pythagorean Theorem to determine side lengths and angle measures in right triangles
9-10.4.3 Use approximations to compare the standard and metric systems of measurement; e.g., a five-kilometer race is about three miles long
9-10.4.4 Given a conversion factor, convert between standard and metric measurements
9-10.4.5 Use methods necessary to achieve a specified degree of precision and accuracy (i.e., appropriate number of significant digits) in measurement situations
9-10.4.6 Employ estimation techniques to evaluate reasonableness of results in measurement situations
9-10.4.8 Given a formula list, compute the area of a regular polygon
9-10.4.10 Apply indirect measurement techniques to solve problems involving irregular shapes or inaccessible objects; e.g., calculate the distance across a lake, triangulate an irregular region to find its approximate area
11-12.1.7 Add, subtract, and multiply complex numbers

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance

7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.
8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
8.3.2 Explain the relationship between phases of matter and temperature
8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects
8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.4 Formulate a testable hypothesis for a simple investigation
9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment
9-10.2.6 Design and conduct a guided investigation
9-10.2.7 Maintain clear and accurate records of scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.3.10 Describe the differences between series and parallel circuits
9-10.4.10 Explain the energy and organization related to trophic pyramids
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)
9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition
9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)
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11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations
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11-12.2.7 Design and conduct an independent investigation
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11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 1: Whole Numbers - Add, subtract, multiply, and divide whole numbers, with and without a calculator.
Competency 2.1.10: Review the procedure to solve complicated division problems using long division.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations

Mathematics

6.1.13 Use problem solving strategies to solve and verify the results of problems
7.1.4 Use integers to represent and compare quantities
7.1.10 Use proportions to solve problems
8.1.4 Represent large and small numbers using scientific notation
8.1.9 Determine when an estimate is sufficient and an exact answer is needed in problem situations
9-10.1.8 Apply estimation skills to predict realistic solutions to problems
9-10.1.9 Select and use a computational technique (i.e., mental calculation, paper-and-pencil, or technology) to solve problems involving real numbers
9-10.1.10 Explain the reasonableness of a problem's solution and the process used to obtain it

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)

6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
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8.3.2 Explain the relationship between phases of matter and temperature
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9-10.2.4 Formulate a testable hypothesis for a simple investigation
9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment
9-10.2.6 Design and conduct a guided investigation
9-10.2.7 Maintain clear and accurate records of scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.3.10 Describe the differences between series and parallel circuits
9-10.4.10 Explain the energy and organization related to trophic pyramids
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)
9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)
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Standard 2: Introduction to Construction Math
Topic 1: Whole Numbers - Add, subtract, multiply, and divide whole numbers, with and without a calculator.
Competency 2.1.11: Divide complex whole numbers.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
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Mathematics

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Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
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9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)
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9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.4 Formulate a testable hypothesis for a simple investigation
9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment
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9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition

9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)

11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)

11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis

11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data

11-12.2.5 Use technology and mathematics to improve investigations and communications

11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)

11-12.2.7 Design and conduct an independent investigation

11-12.2.8 Communicate and defend a scientific argument

11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles

11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)

11-12.3.13 Explain how magnetic forces relate to electric forces

11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 1: Whole Numbers - Add, subtract, multiply, and divide whole numbers, with and without a calculator.
Competency 2.1.12: Demonstrate how to identify and use the functions of a calculator.

<u>English/Language Arts</u>

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning

of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment

6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.
8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
8.3.2 Explain the relationship between phases of matter and temperature
8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects
8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.4 Formulate a testable hypothesis for a simple investigation
9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment
9-10.2.6 Design and conduct a guided investigation
9-10.2.7 Maintain clear and accurate records of scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)

9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.3.10 Describe the differences between series and parallel circuits
9-10.4.10 Explain the energy and organization related to trophic pyramids
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)
9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition
9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)
11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations
11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
11-12.2.5 Use technology and mathematics to improve investigations and communications
11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 1: Whole Numbers - Add, subtract, multiply, and divide whole numbers, with and without a calculator.
Competency 2.1.13: Explain how to divide using a calculator, and review the procedure to express remainder as a whole number.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations

Mathematics

6.1.13 Use problem solving strategies to solve and verify the results of problems
7.1.4 Use integers to represent and compare quantities
7.1.10 Use proportions to solve problems
8.1.4 Represent large and small numbers using scientific notation
8.1.9 Determine when an estimate is sufficient and an exact answer is needed in problem situations
9-10.1.8 Apply estimation skills to predict realistic solutions to problems
9-10.1.9 Select and use a computational technique (i.e., mental calculation, paper-and-pencil, or technology) to solve problems involving real numbers
9-10.1.10 Explain the reasonableness of a problem's solution and the process used to obtain it

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)

6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
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6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
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6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
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8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)

8.3.2 Explain the relationship between phases of matter and temperature
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9-10.1.1 Explain how models can be used to illustrate scientific principles
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9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.4 Formulate a testable hypothesis for a simple investigation
9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment
9-10.2.6 Design and conduct a guided investigation
9-10.2.7 Maintain clear and accurate records of scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
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9-10.3.10 Describe the differences between series and parallel circuits
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11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
11-12.2.5 Use technology and mathematics to improve investigations and communications

11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
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11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 2: Working with Measurements-use a standard ruler and a metric ruler to measure.
Competency 2.2.1: Identify the types of measurement tools used in the construction trade.

<u>English/Language Arts</u>
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details

12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
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7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ

transplant, medical scanning devices)

7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.

8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems

8.2.2 Use evidence to generate descriptions, explanations, predictions, and models

8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data

8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)

8.3.2 Explain the relationship between phases of matter and temperature

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8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.

9-10.1.1 Explain how models can be used to illustrate scientific principles

9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.3 Identify questions and concepts that guide scientific investigations

9-10.2.4 Formulate a testable hypothesis for a simple investigation

9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment

9-10.2.6 Design and conduct a guided investigation

9-10.2.7 Maintain clear and accurate records of scientific investigations

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.3.10 Describe the differences between series and parallel circuits

9-10.4.10 Explain the energy and organization related to trophic pyramids

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

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9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)

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11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
11-12.2.5 Use technology and mathematics to improve investigations and communications
11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
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11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
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11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 2: Working with Measurements-use a standard ruler and a metric ruler to measure.
Competency 2.2.2: Compare a standard ruler with a metric ruler.

English/Language Arts

Mathematics
- No existing North Dakota Mathematics standard

Science
6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work)

to address different kinds of questions.

6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
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7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.
8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
8.3.2 Explain the relationship between phases of matter and temperature
8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects
8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.
9-10.1.1 Explain how models can be used to illustrate scientific principles

9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.4 Formulate a testable hypothesis for a simple investigation
9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment
9-10.2.6 Design and conduct a guided investigation
9-10.2.7 Maintain clear and accurate records of scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.3.10 Describe the differences between series and parallel circuits
9-10.4.10 Explain the energy and organization related to trophic pyramids
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)
9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition
9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)
11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations
11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
11-12.2.5 Use technology and mathematics to improve investigations and communications
11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g.,

gravitational force, vectors, velocity, friction)

11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles

11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)

11-12.3.13 Explain how magnetic forces relate to electric forces

11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 2: Working with Measurements-use a standard ruler and a metric ruler to measure.
Competency 2.2.3: Demonstrate the distances shown on a standard ruler, including halves, fourths, eights, and sixteenths.

<u>English/Language Arts</u>

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.5 Use prior knowledge and experiences to aid text comprehension

6.4.5 Use appropriate volume and eye contact when speaking

7.1.1 Generate and evaluate questions relevant to research topic

7.1.3 Question the accuracy and relevance of information

7.2.4 Use prior knowledge and experiences to aid text comprehension

7.4.5 Speak to entertain an audience; e.g., story telling

8.1.1 Use questions to narrow research topic

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

9.1.1 Choose a broad topic, state the problem, or question

9.1.4 Evaluate relevancy of inform

9.4.4 Engage in a group discussion

10.1.4 Use relevant information

10.3.7 Use a variety of supporting details

10.4.3 Formulate questions in response to a verbal message

11.3.5 Use a variety of supporting details

12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.1.1 Use a fraction to represent parts of a whole, division, or a ratio
6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
6.1.4 Compare and order fractions, decimals, mixed numbers and integers
6.1.13 Use problem solving strategies to solve and verify the results of problems
6.1.14 Estimate the results of problems involving whole numbers, fractions, and decimals
6.4.1 Measure length to the nearest sixteenth of an inch
6.4.2 Select an appropriate unit of measure; e.g., What unit do you use to measure a person's height?
6.4.3 Convert unit measurements within the same system (metric and standard)
6.4.5 Select appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
7.1.1 Use ratios and proportions to represent relationships
7.1.4 Use integers to represent and compare quantities
7.1.7 Add, subtract, multiply, and divide fractions and terminating decimals
7.1.8 Solve real-world problems using integers, fractions, decimals, and percents
7.1.9 Estimate the results of problems involving fractions, decimals, and percents
7.1.10 Use proportions to solve problems
7.3.6 Describe how scale can make graphs, tables, and charts appear misleading
7.4.1 Estimate a measurement to the degree of precision that the tool provides
7.4.2 Convert unit measurements within the same system (metric and standard) when solving problems
7.4.4 Select and use appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
7.4.5 Solve problems involving scale factors, using ratio and proportion
8.1.2 Solve real-world problems involving ration, proportion, and percent
8.1.8 Select and use a computational technique (e.g., mental calculation, paper-and-pencil, technology) to solve problems
8.4.2 Compare unit measurements between systems, e.g., a yard is almost a meter
9-10.1.8 Apply estimation skills to predict realistic solutions to problems
9-10.1.9 Select and use a computational technique (i.e., mental calculation, paper-and-pencil, or technology) to solve problems involving real numbers
9-10.4.1 Select appropriate units and scales for problem situations involving measurement
9-10.4.5 Use methods necessary to achieve a specified degree of precision and accuracy (i.e., appropriate number of significant digits) in measurement situations
9-10.4.6 Employ estimation techniques to evaluate reasonableness of results in measurement situations
9-10.4.10 Apply indirect measurement techniques to solve problems involving irregular shapes or inaccessible objects; e.g., calculate the distance across a lake, triangulate an irregular region to find its approximate area

Science

Standard 2: Introduction to Construction Math
Topic 2: Working with Measurements-use a standard ruler and a metric ruler to measure.
Competency 2.2.4: Explain how the architect's scale can be read from left to right or from right to left.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.1.1 Use a fraction to represent parts of a whole, division, or a ratio
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7.1.1 Use ratios and proportions to represent relationships
7.1.4 Use integers to represent and compare quantities
7.1.7 Add, subtract, multiply, and divide fractions and terminating decimals

7.1.8 Solve real-world problems using integers, fractions, decimals, and percents
7.1.9 Estimate the results of problems involving fractions, decimals, and percents
7.1.10 Use proportions to solve problems
7.3.6 Describe how scale can make graphs, tables, and charts appear misleading
7.4.1 Estimate a measurement to the degree of precision that the tool provides
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9-10.1.8 Apply estimation skills to predict realistic solutions to problems
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9-10.4.6 Employ estimation techniques to evaluate reasonableness of results in measurement situations
9-10.4.10 Apply indirect measurement techniques to solve problems involving irregular shapes or inaccessible objects; e.g., calculate the distance across a lake, triangulate an irregular region to find its approximate area

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology

6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.
8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
8.3.2 Explain the relationship between phases of matter and temperature
8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects
8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)
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9-10.2.4 Formulate a testable hypothesis for a simple investigation
9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment
9-10.2.6 Design and conduct a guided investigation
9-10.2.7 Maintain clear and accurate records of scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.3.10 Describe the differences between series and parallel circuits
9-10.4.10 Explain the energy and organization related to trophic pyramids
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)
9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition
9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)
11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations
11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
11-12.2.5 Use technology and mathematics to improve investigations and communications
11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 2: Working with Measurements-use a standard ruler and a metric ruler to measure.
Competency 2.2.5: Demonstrate how to use the architect's scale on a blueprint.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
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6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
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9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a

cell)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.3 Identify questions and concepts that guide scientific investigations

9-10.2.4 Formulate a testable hypothesis for a simple investigation

9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment

9-10.2.6 Design and conduct a guided investigation

9-10.2.7 Maintain clear and accurate records of scientific investigations

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.3.10 Describe the differences between series and parallel circuits

9-10.4.10 Explain the energy and organization related to trophic pyramids

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)

9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)

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9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition

9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)

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11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

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11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data

11-12.2.5 Use technology and mathematics to improve investigations and communications

11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)

11-12.2.7 Design and conduct an independent investigation

11-12.2.8 Communicate and defend a scientific argument

11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of

particles
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11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 3: What are Fractions? - Add, subtract, multiply, and divide fractions.
Competency 2.3.1: Explain how fractions divide whole units into parts.

English/Language Arts
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
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9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics
6.1.1 Use a fraction to represent parts of a whole, division, or a ratio
6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
6.1.4 Compare and order fractions, decimals, mixed numbers and integers

6.1.14 Estimate the results of problems involving whole numbers, fractions, and decimals
7.1.1 Use ratios and proportions to represent relationships
7.1.7 Add, subtract, multiply, and divide fractions and terminating decimals
7.1.8 Solve real-world problems using integers, fractions, decimals, and percents
7.1.9 Estimate the results of problems involving fractions, decimals, and percents
7.1.10 Use proportions to solve problems

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.
8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
8.3.2 Explain the relationship between phases of matter and temperature
8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects
8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.4 Formulate a testable hypothesis for a simple investigation
9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment
9-10.2.6 Design and conduct a guided investigation
9-10.2.7 Maintain clear and accurate records of scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.3.10 Describe the differences between series and parallel circuits
9-10.4.10 Explain the energy and organization related to trophic pyramids
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)
9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition
9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)
11-12.1.2 Identify the structure, organization, and dynamics of components within a system

(e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)

11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis

11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data

11-12.2.5 Use technology and mathematics to improve investigations and communications

11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)

11-12.2.7 Design and conduct an independent investigation

11-12.2.8 Communicate and defend a scientific argument

11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles

11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)

11-12.3.13 Explain how magnetic forces relate to electric forces

11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 3: What are Fractions? - Add, subtract, multiply, and divide fractions.
Competency 2.3.2: Demonstrate how to find equivalent fractions.

<u>English/Language Arts</u>

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.5 Use prior knowledge and experiences to aid text comprehension

6.4.5 Use appropriate volume and eye contact when speaking

7.1.1 Generate and evaluate questions relevant to research topic

7.1.3 Question the accuracy and relevance of information

7.2.4 Use prior knowledge and experiences to aid text comprehension

7.4.5 Speak to entertain an audience; e.g., story telling

8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
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9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids,

liquids, gases)

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9-10.3.10 Describe the differences between series and parallel circuits

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11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis

11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data

11-12.2.5 Use technology and mathematics to improve investigations and communications

11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)

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11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 3: What are Fractions? - Add, subtract, multiply, and divide fractions.
Competency 2.3.3: Demonstrate how to use division to reduce a fraction to its lowest term.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
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7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
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9.1.1 Choose a broad topic, state the problem, or question
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Mathematics

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6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
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Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)

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Standard 2: Introduction to Construction Math
Topic 3: What are Fractions? - Add, subtract, multiply, and divide fractions.
Competency 2.3.4: Use the steps to find the lowest common denominator.

English/Language Arts

6.1.1 Pose relevant research questions
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6.8.2 Identify scientific advances that have resulted in new ideas and further advance
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7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)

7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.
8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
8.3.2 Explain the relationship between phases of matter and temperature
8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects
8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.4 Formulate a testable hypothesis for a simple investigation
9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment
9-10.2.6 Design and conduct a guided investigation
9-10.2.7 Maintain clear and accurate records of scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.3.10 Describe the differences between series and parallel circuits
9-10.4.10 Explain the energy and organization related to trophic pyramids
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)
9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics,

computers, Internet resources, CD-ROMs)

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition

9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)

11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)

11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis

11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data

11-12.2.5 Use technology and mathematics to improve investigations and communications

11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)

11-12.2.7 Design and conduct an independent investigation

11-12.2.8 Communicate and defend a scientific argument

11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles

11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)

11-12.3.13 Explain how magnetic forces relate to electric forces

11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 3: What are Fractions? - Add, subtract, multiply, and divide fractions.
Competency 2.3.5: Demonstrate how to add fractions.

<u>English/Language Arts</u>

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes,

multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics
6.1.1 Use a fraction to represent parts of a whole, division, or a ratio
6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
6.1.4 Compare and order fractions, decimals, mixed numbers and integers
6.1.11 Add, subtract, multiply, and divide fractions
6.1.14 Estimate the results of problems involving whole numbers, fractions, and decimals
7.1.1 Use ratios and proportions to represent relationships
7.1.7 Add, subtract, multiply, and divide fractions and terminating decimals
7.1.8 Solve real-world problems using integers, fractions, decimals, and percents
7.1.9 Estimate the results of problems involving fractions, decimals, and percents
7.1.10 Use proportions to solve problems

Science
6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces

6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
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9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.4 Formulate a testable hypothesis for a simple investigation
9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment
9-10.2.6 Design and conduct a guided investigation
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11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)

11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 3: What are Fractions? - Add, subtract, multiply, and divide fractions.
Competency 2.3.6: Compare the procedure for adding fractions to the procedure for subtracting fractions.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.1.1 Use a fraction to represent parts of a whole, division, or a ratio
6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
6.1.4 Compare and order fractions, decimals, mixed numbers and integers
6.1.11 Add, subtract, multiply, and divide fractions
6.1.14 Estimate the results of problems involving whole numbers, fractions, and decimals

7.1.1 Use ratios and proportions to represent relationships
7.1.7 Add, subtract, multiply, and divide fractions and terminating decimals
7.1.8 Solve real-world problems using integers, fractions, decimals, and percents
7.1.9 Estimate the results of problems involving fractions, decimals, and percents
7.1.10 Use proportions to solve problems

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
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6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
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8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data

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8.3.2 Explain the relationship between phases of matter and temperature

8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects

8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.

9-10.1.1 Explain how models can be used to illustrate scientific principles

9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.3 Identify questions and concepts that guide scientific investigations

9-10.2.4 Formulate a testable hypothesis for a simple investigation

9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment

9-10.2.6 Design and conduct a guided investigation

9-10.2.7 Maintain clear and accurate records of scientific investigations

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.3.10 Describe the differences between series and parallel circuits

9-10.4.10 Explain the energy and organization related to trophic pyramids

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9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition

9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)

11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical

equilibrium)
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11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 3: What are Fractions? - Add, subtract, multiply, and divide fractions.
Competency 2.3.7: Demonstrate how to subtract a fraction from a whole number.

<u>English/Language Arts</u>
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics
6.1.1 Use a fraction to represent parts of a whole, division, or a ratio
6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
6.1.4 Compare and order fractions, decimals, mixed numbers and integers
6.1.11 Add, subtract, multiply, and divide fractions
6.1.14 Estimate the results of problems involving whole numbers, fractions, and decimals
7.1.1 Use ratios and proportions to represent relationships
7.1.7 Add, subtract, multiply, and divide fractions and terminating decimals
7.1.8 Solve real-world problems using integers, fractions, decimals, and percents
7.1.9 Estimate the results of problems involving fractions, decimals, and percents
7.1.10 Use proportions to solve problems

Science

Standard 2: Introduction to Construction Math
Topic 3: What are Fractions? - Add, subtract, multiply, and divide fractions.
Competency 2.3.8: Demonstrate how to multiply fractions.

English/Language Arts
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
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division)

7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)

7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)

7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)

7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)

7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)

7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)

7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.

8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems

8.2.2 Use evidence to generate descriptions, explanations, predictions, and models

8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data

8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)

8.3.2 Explain the relationship between phases of matter and temperature

8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects

8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.

9-10.1.1 Explain how models can be used to illustrate scientific principles

9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.3 Identify questions and concepts that guide scientific investigations

9-10.2.4 Formulate a testable hypothesis for a simple investigation

9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment

9-10.2.6 Design and conduct a guided investigation

9-10.2.7 Maintain clear and accurate records of scientific investigations

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.3.10 Describe the differences between series and parallel circuits

9-10.4.10 Explain the energy and organization related to trophic pyramids
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)
9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition
9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)
11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations
11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
11-12.2.5 Use technology and mathematics to improve investigations and communications
11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
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11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 3: What are Fractions? - Add, subtract, multiply, and divide fractions.
Competency 2.3.9: Explain the difference between dividing and multiplying fractions.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.1.1 Use a fraction to represent parts of a whole, division, or a ratio
6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
6.1.4 Compare and order fractions, decimals, mixed numbers and integers
6.1.11 Add, subtract, multiply, and divide fractions
6.1.14 Estimate the results of problems involving whole numbers, fractions, and decimals
7.1.1 Use ratios and proportions to represent relationships
7.1.7 Add, subtract, multiply, and divide fractions and terminating decimals
7.1.8 Solve real-world problems using integers, fractions, decimals, and percents
7.1.9 Estimate the results of problems involving fractions, decimals, and percents
7.1.10 Use proportions to solve problems

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)

6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
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Standard 2: Introduction to Construction Math
Topic 3: What are Fractions? - Add, subtract, multiply, and divide fractions.
Competency 2.3.10: Explain how to convert mixed numbers to improper fractions.

<u>English/Language Arts</u>
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9-10.2.7 Maintain clear and accurate records of scientific investigations

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

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Standard 2: Introduction to Construction Math
Topic 3: What are Fractions? - Add, subtract, multiply, and divide fractions.
Competency 2.3.11: Demonstrate how to divide fractions.

<u>English/Language Arts</u>
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9-10.2.7 Maintain clear and accurate records of scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.3.10 Describe the differences between series and parallel circuits
9-10.4.10 Explain the energy and organization related to trophic pyramids
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)
9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition
9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)
11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations
11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
11-12.2.5 Use technology and mathematics to improve investigations and communications
11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces

11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 4: Decimals - Add, subtract, multiply, and divide decimals, with and without a calculator.
Competency 2.4.1: Explain how to read a machinist's rule.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system

6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.
8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
8.3.2 Explain the relationship between phases of matter and temperature
8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance

between the masses of the objects

8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.

9-10.1.1 Explain how models can be used to illustrate scientific principles

9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.3 Identify questions and concepts that guide scientific investigations

9-10.2.4 Formulate a testable hypothesis for a simple investigation

9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment

9-10.2.6 Design and conduct a guided investigation

9-10.2.7 Maintain clear and accurate records of scientific investigations

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)

9-10.3.5 Identify the reactants and products in a chemical reaction

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11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis

11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data

11-12.2.5 Use technology and mathematics to improve investigations and communications

11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)

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11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 4: Decimals - Add, subtract, multiply, and divide decimals, with and without a calculator.
Competency 2.4.2: Locate measurements on a machinist's rule.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
6.1.4 Compare and order fractions, decimals, mixed numbers and integers
6.1.10 Multiply and divide decimals
6.1.13 Use problem solving strategies to solve and verify the results of problems
6.1.14 Estimate the results of problems involving whole numbers, fractions, and decimals
6.4.2 Select an appropriate unit of measure; e.g., What unit do you use to measure a person's height?
6.4.3 Convert unit measurements within the same system (metric and standard)
6.4.5 Select appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
6.4.6 Use formulas to determine the circumference and area of circles and the perimeter and area of triangles and parallelograms
7.1.7 Add, subtract, multiply, and divide fractions and terminating decimals
7.1.8 Solve real-world problems using integers, fractions, decimals, and percents
7.1.9 Estimate the results of problems involving fractions, decimals, and percents
7.1.10 Use proportions to solve problems
7.4.2 Convert unit measurements within the same system (metric and standard) when solving problems
8.1.2 Solve real-world problems involving ration, proportion, and percent
8.1.8 Select and use a computational technique (e.g., mental calculation, paper-and-pencil, technology) to solve problems
8.1.9 Determine when an estimate is sufficient and an exact answer is needed in problem situations
9-10.1.9 Select and use a computational technique (i.e., mental calculation, paper-and-pencil, or technology) to solve problems involving real numbers
9-10.4.1 Select appropriate units and scales for problem situations involving measurement
9-10.4.4 Given a conversion factor, convert between standard and metric measurements
9-10.4.5 Use methods necessary to achieve a specified degree of precision and accuracy (i.e., appropriate number of significant digits) in measurement situations
9-10.4.6 Employ estimation techniques to evaluate reasonableness of results in measurement situations

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
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6.3.1 Organize materials according to similar properties (e.g., physical, chemical)

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6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
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apron, eye wash station)

9-10.2.3 Identify questions and concepts that guide scientific investigations

9-10.2.4 Formulate a testable hypothesis for a simple investigation

9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment

9-10.2.6 Design and conduct a guided investigation

9-10.2.7 Maintain clear and accurate records of scientific investigations

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)

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11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data

11-12.2.5 Use technology and mathematics to improve investigations and communications

11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)

11-12.2.7 Design and conduct an independent investigation

11-12.2.8 Communicate and defend a scientific argument

11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

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11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 4: Decimals - Add, subtract, multiply, and divide decimals, with and without a calculator.
Competency 2.4.3: Compare whole number place values with decimal places.

English/Language Arts
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
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Mathematics
6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
6.1.4 Compare and order fractions, decimals, mixed numbers and integers
6.1.10 Multiply and divide decimals
6.1.13 Use problem solving strategies to solve and verify the results of problems
6.1.14 Estimate the results of problems involving whole numbers, fractions, and decimals

6.4.2 Select an appropriate unit of measure; e.g., What unit do you use to measure a person's height?
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9-10.2.4 Formulate a testable hypothesis for a simple investigation
9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment
9-10.2.6 Design and conduct a guided investigation
9-10.2.7 Maintain clear and accurate records of scientific investigations

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9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)
9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition
9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)
11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations
11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
11-12.2.5 Use technology and mathematics to improve investigations and communications
11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 4: Decimals - Add, subtract, multiply, and divide decimals, with and without a calculator.
Competency 2.4.4: Demonstrate how measurements are read in the field.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
6.1.4 Compare and order fractions, decimals, mixed numbers and integers
6.1.10 Multiply and divide decimals
6.1.13 Use problem solving strategies to solve and verify the results of problems
6.1.14 Estimate the results of problems involving whole numbers, fractions, and decimals
6.4.2 Select an appropriate unit of measure; e.g., What unit do you use to measure a person's height?
6.4.3 Convert unit measurements within the same system (metric and standard)
6.4.5 Select appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
6.4.6 Use formulas to determine the circumference and area of circles and the perimeter and area of triangles and parallelograms

7.1.7 Add, subtract, multiply, and divide fractions and terminating decimals
7.1.8 Solve real-world problems using integers, fractions, decimals, and percents
7.1.9 Estimate the results of problems involving fractions, decimals, and percents
7.1.10 Use proportions to solve problems
7.4.2 Convert unit measurements within the same system (metric and standard) when solving problems
8.1.2 Solve real-world problems involving ration, proportion, and percent
8.1.8 Select and use a computational technique (e.g., mental calculation, paper-and-pencil, technology) to solve problems
8.1.9 Determine when an estimate is sufficient and an exact answer is needed in problem situations
9-10.1.9 Select and use a computational technique (i.e., mental calculation, paper-and-pencil, or technology) to solve problems involving real numbers
9-10.4.1 Select appropriate units and scales for problem situations involving measurement
9-10.4.4 Given a conversion factor, convert between standard and metric measurements
9-10.4.5 Use methods necessary to achieve a specified degree of precision and accuracy (i.e., appropriate number of significant digits) in measurement situations
9-10.4.6 Employ estimation techniques to evaluate reasonableness of results in measurement situations

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a

system (e.g., body systems, ecosystems)

7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)

7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)

7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)

7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)

7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)

7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.

8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems

8.2.2 Use evidence to generate descriptions, explanations, predictions, and models

8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data

8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)

8.3.2 Explain the relationship between phases of matter and temperature

8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects

8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.

9-10.1.1 Explain how models can be used to illustrate scientific principles

9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.3 Identify questions and concepts that guide scientific investigations

9-10.2.4 Formulate a testable hypothesis for a simple investigation

9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment

9-10.2.6 Design and conduct a guided investigation

9-10.2.7 Maintain clear and accurate records of scientific investigations

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.3.10 Describe the differences between series and parallel circuits

9-10.4.10 Explain the energy and organization related to trophic pyramids

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices,

deforestation, land-use practices, land-management strategies) on the environment

9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)

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11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis

11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data

11-12.2.5 Use technology and mathematics to improve investigations and communications

11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)

11-12.2.7 Design and conduct an independent investigation

11-12.2.8 Communicate and defend a scientific argument

11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

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11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 4: Decimals - Add, subtract, multiply, and divide decimals, with and without a calculator.
Competency 2.4.5: Compare whole numbers with decimals.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
6.1.4 Compare and order fractions, decimals, mixed numbers and integers
6.1.10 Multiply and divide decimals
6.1.13 Use problem solving strategies to solve and verify the results of problems
6.1.14 Estimate the results of problems involving whole numbers, fractions, and decimals
6.4.2 Select an appropriate unit of measure; e.g., What unit do you use to measure a person's height?
6.4.3 Convert unit measurements within the same system (metric and standard)
6.4.5 Select appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
6.4.6 Use formulas to determine the circumference and area of circles and the perimeter and area of triangles and parallelograms
7.1.7 Add, subtract, multiply, and divide fractions and terminating decimals
7.1.8 Solve real-world problems using integers, fractions, decimals, and percents
7.1.9 Estimate the results of problems involving fractions, decimals, and percents
7.1.10 Use proportions to solve problems
7.4.2 Convert unit measurements within the same system (metric and standard) when solving problems
8.1.2 Solve real-world problems involving ration, proportion, and percent

8.1.8 Select and use a computational technique (e.g., mental calculation, paper-and-pencil, technology) to solve problems
8.1.9 Determine when an estimate is sufficient and an exact answer is needed in problem situations
9-10.1.9 Select and use a computational technique (i.e., mental calculation, paper-and-pencil, or technology) to solve problems involving real numbers
9-10.4.1 Select appropriate units and scales for problem situations involving measurement
9-10.4.4 Given a conversion factor, convert between standard and metric measurements
9-10.4.5 Use methods necessary to achieve a specified degree of precision and accuracy (i.e., appropriate number of significant digits) in measurement situations
9-10.4.6 Employ estimation techniques to evaluate reasonableness of results in measurement situations

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)

7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.
8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
8.3.2 Explain the relationship between phases of matter and temperature
8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects
8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.4 Formulate a testable hypothesis for a simple investigation
9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment
9-10.2.6 Design and conduct a guided investigation
9-10.2.7 Maintain clear and accurate records of scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.3.10 Describe the differences between series and parallel circuits
9-10.4.10 Explain the energy and organization related to trophic pyramids
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
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11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis

11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data

11-12.2.5 Use technology and mathematics to improve investigations and communications

11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)

11-12.2.7 Design and conduct an independent investigation

11-12.2.8 Communicate and defend a scientific argument

11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

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11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 4: Decimals - Add, subtract, multiply, and divide decimals, with and without a calculator.
Competency 2.4.6: Demonstrate how to add and subtract decimals.

<u>English/Language Arts</u>

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.5 Use prior knowledge and experiences to aid text comprehension
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7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
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7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
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9.4.4 Engage in a group discussion
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12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
6.1.4 Compare and order fractions, decimals, mixed numbers and integers
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8.1.2 Solve real-world problems involving ration, proportion, and percent
8.1.8 Select and use a computational technique (e.g., mental calculation, paper-and-pencil, technology) to solve problems
8.1.9 Determine when an estimate is sufficient and an exact answer is needed in problem situations
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9-10.4.1 Select appropriate units and scales for problem situations involving measurement

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Science

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9-10.1.1 Explain how models can be used to illustrate scientific principles

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9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.3 Identify questions and concepts that guide scientific investigations

9-10.2.4 Formulate a testable hypothesis for a simple investigation

9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment

9-10.2.6 Design and conduct a guided investigation

9-10.2.7 Maintain clear and accurate records of scientific investigations

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.3.10 Describe the differences between series and parallel circuits

9-10.4.10 Explain the energy and organization related to trophic pyramids

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)

9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition

9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)

11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical

equilibrium)
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations
11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
11-12.2.5 Use technology and mathematics to improve investigations and communications
11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 4: Decimals - Add, subtract, multiply, and divide decimals, with and without a calculator.
Competency 2.4.7: Demonstrate how to multiply decimals.

English/Language Arts
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
6.1.4 Compare and order fractions, decimals, mixed numbers and integers
6.1.10 Multiply and divide decimals
6.1.13 Use problem solving strategies to solve and verify the results of problems
6.1.14 Estimate the results of problems involving whole numbers, fractions, and decimals
6.4.2 Select an appropriate unit of measure; e.g., What unit do you use to measure a person's height?
6.4.3 Convert unit measurements within the same system (metric and standard)
6.4.5 Select appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
6.4.6 Use formulas to determine the circumference and area of circles and the perimeter and area of triangles and parallelograms
7.1.7 Add, subtract, multiply, and divide fractions and terminating decimals
7.1.8 Solve real-world problems using integers, fractions, decimals, and percents
7.1.9 Estimate the results of problems involving fractions, decimals, and percents
7.1.10 Use proportions to solve problems
7.4.2 Convert unit measurements within the same system (metric and standard) when solving problems
8.1.2 Solve real-world problems involving ration, proportion, and percent
8.1.8 Select and use a computational technique (e.g., mental calculation, paper-and-pencil, technology) to solve problems
8.1.9 Determine when an estimate is sufficient and an exact answer is needed in problem situations
9-10.1.9 Select and use a computational technique (i.e., mental calculation, paper-and-pencil, or technology) to solve problems involving real numbers
9-10.4.1 Select appropriate units and scales for problem situations involving measurement
9-10.4.4 Given a conversion factor, convert between standard and metric measurements
9-10.4.5 Use methods necessary to achieve a specified degree of precision and accuracy (i.e., appropriate number of significant digits) in measurement situations
9-10.4.6 Employ estimation techniques to evaluate reasonableness of results in measurement situations

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.
8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and

estimation) to interpret quantitative data

8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)

8.3.2 Explain the relationship between phases of matter and temperature

8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects

8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.

9-10.1.1 Explain how models can be used to illustrate scientific principles

9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.3 Identify questions and concepts that guide scientific investigations

9-10.2.4 Formulate a testable hypothesis for a simple investigation

9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment

9-10.2.6 Design and conduct a guided investigation

9-10.2.7 Maintain clear and accurate records of scientific investigations

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.3.10 Describe the differences between series and parallel circuits

9-10.4.10 Explain the energy and organization related to trophic pyramids

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)

9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition

9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)

11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)

11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis

11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
11-12.2.5 Use technology and mathematics to improve investigations and communications
11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 4: Decimals - Add, subtract, multiply, and divide decimals, with and without a calculator.
Competency 2.4.8: Identify the three types of division problems involving decimals.

<u>English/Language Arts</u>
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information

10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
6.1.4 Compare and order fractions, decimals, mixed numbers and integers
6.1.10 Multiply and divide decimals
6.1.13 Use problem solving strategies to solve and verify the results of problems
6.1.14 Estimate the results of problems involving whole numbers, fractions, and decimals
6.4.2 Select an appropriate unit of measure; e.g., What unit do you use to measure a person's height?
6.4.3 Convert unit measurements within the same system (metric and standard)
6.4.5 Select appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
6.4.6 Use formulas to determine the circumference and area of circles and the perimeter and area of triangles and parallelograms
7.1.7 Add, subtract, multiply, and divide fractions and terminating decimals
7.1.8 Solve real-world problems using integers, fractions, decimals, and percents
7.1.9 Estimate the results of problems involving fractions, decimals, and percents
7.1.10 Use proportions to solve problems
7.4.2 Convert unit measurements within the same system (metric and standard) when solving problems
8.1.2 Solve real-world problems involving ration, proportion, and percent
8.1.8 Select and use a computational technique (e.g., mental calculation, paper-and-pencil, technology) to solve problems
8.1.9 Determine when an estimate is sufficient and an exact answer is needed in problem situations
9-10.1.9 Select and use a computational technique (i.e., mental calculation, paper-and-pencil, or technology) to solve problems involving real numbers
9-10.4.1 Select appropriate units and scales for problem situations involving measurement
9-10.4.4 Given a conversion factor, convert between standard and metric measurements
9-10.4.5 Use methods necessary to achieve a specified degree of precision and accuracy (i.e., appropriate number of significant digits) in measurement situations
9-10.4.6 Employ estimation techniques to evaluate reasonableness of results in measurement situations

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth’s interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)

6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.
8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
8.3.2 Explain the relationship between phases of matter and temperature
8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects
8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.

9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.4 Formulate a testable hypothesis for a simple investigation
9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment
9-10.2.6 Design and conduct a guided investigation
9-10.2.7 Maintain clear and accurate records of scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.3.10 Describe the differences between series and parallel circuits
9-10.4.10 Explain the energy and organization related to trophic pyramids
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)
9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition
9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)
11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations
11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
11-12.2.5 Use technology and mathematics to improve investigations and communications
11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument

11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 4: Decimals - Add, subtract, multiply, and divide decimals, with and without a calculator.
Competency 2.4.9: Demonstrate how to divide with decimals.

<u>English/Language Arts</u>
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
6.1.4 Compare and order fractions, decimals, mixed numbers and integers
6.1.10 Multiply and divide decimals
6.1.13 Use problem solving strategies to solve and verify the results of problems
6.1.14 Estimate the results of problems involving whole numbers, fractions, and decimals
6.4.2 Select an appropriate unit of measure; e.g., What unit do you use to measure a person's height?
6.4.3 Convert unit measurements within the same system (metric and standard)
6.4.5 Select appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
6.4.6 Use formulas to determine the circumference and area of circles and the perimeter and area of triangles and parallelograms
7.1.7 Add, subtract, multiply, and divide fractions and terminating decimals
7.1.8 Solve real-world problems using integers, fractions, decimals, and percents
7.1.9 Estimate the results of problems involving fractions, decimals, and percents
7.1.10 Use proportions to solve problems
7.4.2 Convert unit measurements within the same system (metric and standard) when solving problems
8.1.2 Solve real-world problems involving ration, proportion, and percent
8.1.8 Select and use a computational technique (e.g., mental calculation, paper-and-pencil, technology) to solve problems
8.1.9 Determine when an estimate is sufficient and an exact answer is needed in problem situations
9-10.1.9 Select and use a computational technique (i.e., mental calculation, paper-and-pencil, or technology) to solve problems involving real numbers
9-10.4.1 Select appropriate units and scales for problem situations involving measurement
9-10.4.4 Given a conversion factor, convert between standard and metric measurements
9-10.4.5 Use methods necessary to achieve a specified degree of precision and accuracy (i.e., appropriate number of significant digits) in measurement situations
9-10.4.6 Employ estimation techniques to evaluate reasonableness of results in measurement situations

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces

6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
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7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
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7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
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7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
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7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.
8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
8.3.2 Explain the relationship between phases of matter and temperature
8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects
8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.4 Formulate a testable hypothesis for a simple investigation
9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment
9-10.2.6 Design and conduct a guided investigation
9-10.2.7 Maintain clear and accurate records of scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.3.10 Describe the differences between series and parallel circuits
9-10.4.10 Explain the energy and organization related to trophic pyramids
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)
9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition
9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)
11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations
11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
11-12.2.5 Use technology and mathematics to improve investigations and communications
11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)

11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 4: Decimals - Add, subtract, multiply, and divide decimals, with and without a calculator.
Competency 2.4.10: Demonstrate how to round decimals to the nearest tenth.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
6.1.4 Compare and order fractions, decimals, mixed numbers and integers
6.1.10 Multiply and divide decimals
6.1.13 Use problem solving strategies to solve and verify the results of problems
6.1.14 Estimate the results of problems involving whole numbers, fractions, and decimals
6.4.2 Select an appropriate unit of measure; e.g., What unit do you use to measure a person's

height?

6.4.3 Convert unit measurements within the same system (metric and standard)

6.4.5 Select appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume

6.4.6 Use formulas to determine the circumference and area of circles and the perimeter and area of triangles and parallelograms

7.1.7 Add, subtract, multiply, and divide fractions and terminating decimals

7.1.8 Solve real-world problems using integers, fractions, decimals, and percents

7.1.9 Estimate the results of problems involving fractions, decimals, and percents

7.1.10 Use proportions to solve problems

7.4.2 Convert unit measurements within the same system (metric and standard) when solving problems

8.1.2 Solve real-world problems involving ration, proportion, and percent

8.1.8 Select and use a computational technique (e.g., mental calculation, paper-and-pencil, technology) to solve problems

8.1.9 Determine when an estimate is sufficient and an exact answer is needed in problem situations

9-10.1.9 Select and use a computational technique (i.e., mental calculation, paper-and-pencil, or technology) to solve problems involving real numbers

9-10.4.1 Select appropriate units and scales for problem situations involving measurement

9-10.4.4 Given a conversion factor, convert between standard and metric measurements

9-10.4.5 Use methods necessary to achieve a specified degree of precision and accuracy (i.e., appropriate number of significant digits) in measurement situations

9-10.4.6 Employ estimation techniques to evaluate reasonableness of results in measurement situations

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)

6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)

6.1.3 Explain the connection between cause and effect in a system

6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)

6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.

6.2.4 Use appropriate tools and techniques to gather and analyze data

6.2.5 Use data from scientific investigations to determine relationships and patterns

6.3.1 Organize materials according to similar properties (e.g., physical, chemical)

6.3.2 Use simple machines to change forces

6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)

6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source

6.5.1 Identify adverse weather conditions and how humans prepare for them

6.6.1 Identify examples of how technologies have evolved

6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)

6.6.3 Explain the relationship between science and technology

6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.
8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
8.3.2 Explain the relationship between phases of matter and temperature
8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects
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9-10.1.1 Explain how models can be used to illustrate scientific principles
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9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.4 Formulate a testable hypothesis for a simple investigation
9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment
9-10.2.6 Design and conduct a guided investigation
9-10.2.7 Maintain clear and accurate records of scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
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11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)
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11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
11-12.2.5 Use technology and mathematics to improve investigations and communications
11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
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11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 4: Decimals - Add, subtract, multiply, and divide decimals, with and without a calculator.
Competency 2.4.11: Demonstrate how to use the calculator to perform decimal operations.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns

6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
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8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
8.3.2 Explain the relationship between phases of matter and temperature
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8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a

cell)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.3 Identify questions and concepts that guide scientific investigations

9-10.2.4 Formulate a testable hypothesis for a simple investigation

9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment

9-10.2.6 Design and conduct a guided investigation

9-10.2.7 Maintain clear and accurate records of scientific investigations

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.3.10 Describe the differences between series and parallel circuits

9-10.4.10 Explain the energy and organization related to trophic pyramids

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)

9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)

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9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition

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11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)

11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis

11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data

11-12.2.5 Use technology and mathematics to improve investigations and communications

11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)

11-12.2.7 Design and conduct an independent investigation

11-12.2.8 Communicate and defend a scientific argument

11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

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11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 5: Conversion Processes - Convert fractions to decimals and decimals to fractions.
Competency 2.5.1: Use the procedures to convert decimals to percentages.

English/Language Arts
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
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9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics
6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
6.1.4 Compare and order fractions, decimals, mixed numbers and integers
6.4.3 Convert unit measurements within the same system (metric and standard)

7.1.10 Use proportions to solve problems
7.4.2 Convert unit measurements within the same system (metric and standard) when solving problems

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
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6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
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6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
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8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data

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8.3.2 Explain the relationship between phases of matter and temperature

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8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.

9-10.1.1 Explain how models can be used to illustrate scientific principles

9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.3 Identify questions and concepts that guide scientific investigations

9-10.2.4 Formulate a testable hypothesis for a simple investigation

9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment

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9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)

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9-10.3.10 Describe the differences between series and parallel circuits

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9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)

9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition

9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)

11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)

11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes,

aerodynamics)
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations
11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
11-12.2.5 Use technology and mathematics to improve investigations and communications
11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 5: Conversion Processes - Convert fractions to decimals and decimals to fractions.
Competency 2.5.2: Use the steps to change fractions to decimals.

<u>English/Language Arts</u>
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
6.1.4 Compare and order fractions, decimals, mixed numbers and integers
6.4.3 Convert unit measurements within the same system (metric and standard)
7.1.10 Use proportions to solve problems
7.4.2 Convert unit measurements within the same system (metric and standard) when solving problems

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)

7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.
8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
8.3.2 Explain the relationship between phases of matter and temperature
8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects
8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.4 Formulate a testable hypothesis for a simple investigation
9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment
9-10.2.6 Design and conduct a guided investigation
9-10.2.7 Maintain clear and accurate records of scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.3.10 Describe the differences between series and parallel circuits
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11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis

11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data

11-12.2.5 Use technology and mathematics to improve investigations and communications

11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)

11-12.2.7 Design and conduct an independent investigation

11-12.2.8 Communicate and defend a scientific argument

11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

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11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 5: Conversion Processes - Convert fractions to decimals and decimals to fractions.
Competency 2.5.3: Demonstrate how to express decimals in words.

<u>English/Language Arts</u>

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
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9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics
6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
6.1.4 Compare and order fractions, decimals, mixed numbers and integers
6.4.3 Convert unit measurements within the same system (metric and standard)
7.1.10 Use proportions to solve problems
7.4.2 Convert unit measurements within the same system (metric and standard) when solving problems

Science
6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)

6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
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9-10.2.4 Formulate a testable hypothesis for a simple investigation
9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment
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9-10.2.7 Maintain clear and accurate records of scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
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11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 5: Conversion Processes - Convert fractions to decimals and decimals to fractions.
Competency 2.5.4: Demonstrate how to convert decimals to fractions.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
6.1.4 Compare and order fractions, decimals, mixed numbers and integers
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Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
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6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
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9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.3 Identify questions and concepts that guide scientific investigations

9-10.2.4 Formulate a testable hypothesis for a simple investigation

9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment

9-10.2.6 Design and conduct a guided investigation

9-10.2.7 Maintain clear and accurate records of scientific investigations

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)

9-10.3.5 Identify the reactants and products in a chemical reaction

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11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 5: Conversion Processes - Convert fractions to decimals and decimals to fractions.
Competency 2.5.5: Demonstrate how to convert inches to decimal equivalents in feet.

<u>English/Language Arts</u>
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
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7.1.3 Question the accuracy and relevance of information
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9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information

10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
6.1.4 Compare and order fractions, decimals, mixed numbers and integers
6.4.3 Convert unit measurements within the same system (metric and standard)
7.1.10 Use proportions to solve problems
7.4.2 Convert unit measurements within the same system (metric and standard) when solving problems

Science

Standard 2: Introduction to Construction Math
Topic 5: Conversion Processes - Convert fractions to decimals and decimals to fractions.
Competency 2.5.6: Demonstrate how to convert inches to decimals.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
6.1.4 Compare and order fractions, decimals, mixed numbers and integers
6.4.3 Convert unit measurements within the same system (metric and standard)
7.1.10 Use proportions to solve problems
7.4.2 Convert unit measurements within the same system (metric and standard) when solving problems

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.
8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
8.3.2 Explain the relationship between phases of matter and temperature
8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects
8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.4 Formulate a testable hypothesis for a simple investigation
9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment
9-10.2.6 Design and conduct a guided investigation
9-10.2.7 Maintain clear and accurate records of scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.3.10 Describe the differences between series and parallel circuits
9-10.4.10 Explain the energy and organization related to trophic pyramids
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)
9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition
9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model

of the solar system)

11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)

11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis

11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data

11-12.2.5 Use technology and mathematics to improve investigations and communications

11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)

11-12.2.7 Design and conduct an independent investigation

11-12.2.8 Communicate and defend a scientific argument

11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles

11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)

11-12.3.13 Explain how magnetic forces relate to electric forces

11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 6: Introduction to the Metric System - Recognize and use metric units of length, weight, volume, and temperature.
Competency 2.6.1: Identify examples of common measurements using the metric system.

<u>English/Language Arts</u>

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.5 Use prior knowledge and experiences to aid text comprehension

6.4.5 Use appropriate volume and eye contact when speaking

7.1.1 Generate and evaluate questions relevant to research topic

7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
6.1.4 Compare and order fractions, decimals, mixed numbers and integers
6.1.10 Multiply and divide decimals
6.4.4 Distinguish among perimeter, area, surface area, and volume
6.4.5 Select appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
6.4.6 Use formulas to determine the circumference and area of circles and the perimeter and area of triangles and parallelograms
6.4.7 Use area formulas to determine the surface area of right prisms and square pyramids
6.4.8 Use formulas to determine the volume of rectangular prisms
7.1.7 Add, subtract, multiply, and divide fractions and terminating decimals
7.1.8 Solve real-world problems using integers, fractions, decimals, and percents
7.1.9 Estimate the results of problems involving fractions, decimals, and percents
7.2.1 Make observations about relationships between two- and three-dimensional figures; e.g., a cube is made with six squares
7.2.6 Build and sketch three-dimensional solids; e.g., using nets, manipulatives
7.4.2 Convert unit measurements within the same system (metric and standard) when solving problems
7.4.3 Select the appropriate measure of perimeter, area, surface area, or volume to solve a problem
7.4.4 Select and use appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
7.4.8 Use formulas to determine the volume of right cylinders
8.2.8 Use two-dimensional representations of three-dimensional objects to visualize and solve problems; e.g., those involving surface area and volume
8.4.3 Use formulas to determine the surface area and volume of right cones and spheres
9-10.2.1 Identify the properties and attributes of two- and three-dimensional objects that distinguish one from another; e.g., a cylinder has two parallel circular bases
9-10.2.10 Recognize images of the same object shown from different perspectives; i.e., a two-

dimensional image of a three-dimensional object

9-10.2.11 Use geometric models to find solutions to problems in mathematics and other disciplines; e.g., art and architecture

9-10.4.4 Given a conversion factor, convert between standard and metric measurements

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)

6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)

6.1.3 Explain the connection between cause and effect in a system

6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)

6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.

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6.3.2 Use simple machines to change forces

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6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source

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6.6.1 Identify examples of how technologies have evolved

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11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 6: Introduction to the Metric System - Recognize and use metric units of length, weight, volume, and temperature.
Competency 2.6.2: Explain how to read measurements on a metric ruler.

<u>English/Language Arts</u>
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
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7.1.3 Question the accuracy and relevance of information
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7.4.5 Speak to entertain an audience; e.g., story telling

8.1.1 Use questions to narrow research topic
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Mathematics

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Science

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9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
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11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
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11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
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11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 6: Introduction to the Metric System - Recognize and use metric units of length, weight, volume, and temperature.
Competency 2.6.3: Explain how to convert inches to yards.

<u>English/Language Arts</u>
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question

9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
6.1.4 Compare and order fractions, decimals, mixed numbers and integers
6.1.10 Multiply and divide decimals
6.4.4 Distinguish among perimeter, area, surface area, and volume
6.4.5 Select appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
6.4.6 Use formulas to determine the circumference and area of circles and the perimeter and area of triangles and parallelograms
6.4.7 Use area formulas to determine the surface area of right prisms and square pyramids
6.4.8 Use formulas to determine the volume of rectangular prisms
7.1.7 Add, subtract, multiply, and divide fractions and terminating decimals
7.1.8 Solve real-world problems using integers, fractions, decimals, and percents
7.1.9 Estimate the results of problems involving fractions, decimals, and percents
7.2.1 Make observations about relationships between two- and three-dimensional figures; e.g., a cube is made with six squares
7.2.6 Build and sketch three-dimensional solids; e.g., using nets, manipulatives
7.4.2 Convert unit measurements within the same system (metric and standard) when solving problems
7.4.3 Select the appropriate measure of perimeter, area, surface area, or volume to solve a problem
7.4.4 Select and use appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
7.4.8 Use formulas to determine the volume of right cylinders
8.2.8 Use two-dimensional representations of three-dimensional objects to visualize and solve problems; e.g., those involving surface area and volume
8.4.3 Use formulas to determine the surface area and volume of right cones and spheres
9-10.2.1 Identify the properties and attributes of two- and three-dimensional objects that distinguish one from another; e.g., a cylinder has two parallel circular bases
9-10.2.10 Recognize images of the same object shown from different perspectives; i.e., a two-dimensional image of a three-dimensional object
9-10.2.11 Use geometric models to find solutions to problems in mathematics and other disciplines; e.g., art and architecture
9-10.4.4 Given a conversion factor, convert between standard and metric measurements

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g.,

solar system, earth's interior)

6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.
8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations,

making accurate measurements, identifying and controlling variables)

8.3.2 Explain the relationship between phases of matter and temperature

8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects

8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.

9-10.1.1 Explain how models can be used to illustrate scientific principles

9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.3 Identify questions and concepts that guide scientific investigations

9-10.2.4 Formulate a testable hypothesis for a simple investigation

9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment

9-10.2.6 Design and conduct a guided investigation

9-10.2.7 Maintain clear and accurate records of scientific investigations

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.3.10 Describe the differences between series and parallel circuits

9-10.4.10 Explain the energy and organization related to trophic pyramids

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)

9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition

9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)

11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)

11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis

11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data

11-12.2.5 Use technology and mathematics to improve investigations and communications
11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 6: Introduction to the Metric System - Recognize and use metric units of length, weight, volume, and temperature.
Competency 2.6.4: Demonstrate how to move the decimal point to find how many meters are in a specific number of centimeters.

<u>English/Language Arts</u>
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information

10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
6.1.4 Compare and order fractions, decimals, mixed numbers and integers
6.1.10 Multiply and divide decimals
6.4.4 Distinguish among perimeter, area, surface area, and volume
6.4.5 Select appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
6.4.6 Use formulas to determine the circumference and area of circles and the perimeter and area of triangles and parallelograms
6.4.7 Use area formulas to determine the surface area of right prisms and square pyramids
6.4.8 Use formulas to determine the volume of rectangular prisms
7.1.7 Add, subtract, multiply, and divide fractions and terminating decimals
7.1.8 Solve real-world problems using integers, fractions, decimals, and percents
7.1.9 Estimate the results of problems involving fractions, decimals, and percents
7.2.1 Make observations about relationships between two- and three-dimensional figures; e.g., a cube is made with six squares
7.2.6 Build and sketch three-dimensional solids; e.g., using nets, manipulatives
7.4.2 Convert unit measurements within the same system (metric and standard) when solving problems
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7.4.4 Select and use appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
7.4.8 Use formulas to determine the volume of right cylinders
8.2.8 Use two-dimensional representations of three-dimensional objects to visualize and solve problems; e.g., those involving surface area and volume
8.4.3 Use formulas to determine the surface area and volume of right cones and spheres
9-10.2.1 Identify the properties and attributes of two- and three-dimensional objects that distinguish one from another; e.g., a cylinder has two parallel circular bases
9-10.2.10 Recognize images of the same object shown from different perspectives; i.e., a two-dimensional image of a three-dimensional object
9-10.2.11 Use geometric models to find solutions to problems in mathematics and other disciplines; e.g., art and architecture
9-10.4.4 Given a conversion factor, convert between standard and metric measurements

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system

6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
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7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.
8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
8.3.2 Explain the relationship between phases of matter and temperature
8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance

between the masses of the objects

8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.

9-10.1.1 Explain how models can be used to illustrate scientific principles

9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.3 Identify questions and concepts that guide scientific investigations

9-10.2.4 Formulate a testable hypothesis for a simple investigation

9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment

9-10.2.6 Design and conduct a guided investigation

9-10.2.7 Maintain clear and accurate records of scientific investigations

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.3.10 Describe the differences between series and parallel circuits

9-10.4.10 Explain the energy and organization related to trophic pyramids

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9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition

9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)

11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)

11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis

11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data

11-12.2.5 Use technology and mathematics to improve investigations and communications

11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)

11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 6: Introduction to the Metric System - Recognize and use metric units of length, weight, volume, and temperature.
Competency 2.6.5: Identify the basic prefixes used in the metric system.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral

interpretations, and group discussions

Mathematics

6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
6.1.4 Compare and order fractions, decimals, mixed numbers and integers
6.1.10 Multiply and divide decimals
6.4.4 Distinguish among perimeter, area, surface area, and volume
6.4.5 Select appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
6.4.6 Use formulas to determine the circumference and area of circles and the perimeter and area of triangles and parallelograms
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9-10.2.11 Use geometric models to find solutions to problems in mathematics and other disciplines; e.g., art and architecture
9-10.4.4 Given a conversion factor, convert between standard and metric measurements

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
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8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.
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9-10.1.2 Describe the interaction of components within a system (e.g., interactions between

living and nonliving components of an ecosystem, interaction between organelles of a cell)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.3 Identify questions and concepts that guide scientific investigations

9-10.2.4 Formulate a testable hypothesis for a simple investigation

9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment

9-10.2.6 Design and conduct a guided investigation

9-10.2.7 Maintain clear and accurate records of scientific investigations

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.3.10 Describe the differences between series and parallel circuits

9-10.4.10 Explain the energy and organization related to trophic pyramids

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)

9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition

9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)

11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)

11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis

11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data

11-12.2.5 Use technology and mathematics to improve investigations and communications

11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)

11-12.2.7 Design and conduct an independent investigation

11-12.2.8 Communicate and defend a scientific argument

11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 6: Introduction to the Metric System - Recognize and use metric units of length, weight, volume, and temperature.
Competency 2.6.6: Demonstrate how to convert metric measurements within the metric system.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents

6.1.4 Compare and order fractions, decimals, mixed numbers and integers
6.1.10 Multiply and divide decimals
6.4.4 Distinguish among perimeter, area, surface area, and volume
6.4.5 Select appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
6.4.6 Use formulas to determine the circumference and area of circles and the perimeter and area of triangles and parallelograms
6.4.7 Use area formulas to determine the surface area of right prisms and square pyramids
6.4.8 Use formulas to determine the volume of rectangular prisms
7.1.7 Add, subtract, multiply, and divide fractions and terminating decimals
7.1.8 Solve real-world problems using integers, fractions, decimals, and percents
7.1.9 Estimate the results of problems involving fractions, decimals, and percents
7.2.1 Make observations about relationships between two- and three-dimensional figures; e.g., a cube is made with six squares
7.2.6 Build and sketch three-dimensional solids; e.g., using nets, manipulatives
7.4.2 Convert unit measurements within the same system (metric and standard) when solving problems
7.4.3 Select the appropriate measure of perimeter, area, surface area, or volume to solve a problem
7.4.4 Select and use appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
7.4.8 Use formulas to determine the volume of right cylinders
8.2.8 Use two-dimensional representations of three-dimensional objects to visualize and solve problems; e.g., those involving surface area and volume
8.4.3 Use formulas to determine the surface area and volume of right cones and spheres
9-10.2.1 Identify the properties and attributes of two- and three-dimensional objects that distinguish one from another; e.g., a cylinder has two parallel circular bases
9-10.2.10 Recognize images of the same object shown from different perspectives; i.e., a two-dimensional image of a three-dimensional object
9-10.2.11 Use geometric models to find solutions to problems in mathematics and other disciplines; e.g., art and architecture
9-10.4.4 Given a conversion factor, convert between standard and metric measurements

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces

6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.
8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
8.3.2 Explain the relationship between phases of matter and temperature
8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects
8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.4 Formulate a testable hypothesis for a simple investigation
9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment
9-10.2.6 Design and conduct a guided investigation
9-10.2.7 Maintain clear and accurate records of scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.3.10 Describe the differences between series and parallel circuits
9-10.4.10 Explain the energy and organization related to trophic pyramids
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)
9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition
9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)
11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations
11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
11-12.2.5 Use technology and mathematics to improve investigations and communications
11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)

11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 7: Introduction to Construction Geometry - recognize some of the basic shapes used in the construction industry and apply basic geometry to measure them.
Competency 2.7.1: Identify the various types of angles.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.2.1 Identify relationships between pairs of angles; i.e., adjacent, vertical, complementary, and supplementary
6.2.2 Identify polygons; i.e., triangle, rectangle, square, rhombus, parallelogram, trapezoid, pentagon, hexagon, octagon
6.2.3 Describe the characteristics of a right triangle

7.2.2 Classify triangles based on side and angle measurements; i.e., scalene, isosceles, equilateral, acute, obtuse, and right
8.2.3 Identify the angles formed and the relationships between the angles when parallel lines are intersected by a transversal
8.2.4 Apply the Pythagorean Theorem to problems involving right triangles
8.2.7 Use scale, proportion, and congruency to solve problems involving similar figures
8.2.8 Use two-dimensional representations of three-dimensional objects to visualize and solve problems; e.g., those involving surface area and volume
9-10.2.3 Use trigonometric relationships and the Pythagorean Theorem to determine side lengths and angle measures in right triangles
9-10.2.9 Construct plane figures using traditional and/or technological tools; i.e., congruent segments, congruent angles, angle and segment bisectors, perpendicular and parallel lines

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism,

battery)

7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)

7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.

8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems

8.2.2 Use evidence to generate descriptions, explanations, predictions, and models

8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data

8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)

8.3.2 Explain the relationship between phases of matter and temperature

8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects

8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.

9-10.1.1 Explain how models can be used to illustrate scientific principles

9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.3 Identify questions and concepts that guide scientific investigations

9-10.2.4 Formulate a testable hypothesis for a simple investigation

9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment

9-10.2.6 Design and conduct a guided investigation

9-10.2.7 Maintain clear and accurate records of scientific investigations

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.3.10 Describe the differences between series and parallel circuits

9-10.4.10 Explain the energy and organization related to trophic pyramids

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)

9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)

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11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
11-12.2.5 Use technology and mathematics to improve investigations and communications
11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 7: Introduction to Construction Geometry - recognize some of the basic shapes used in the construction industry and apply basic geometry to measure them.
Competency 2.7.2: Identify the vertex of the angles.

<u>English/Language Arts</u>
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes,

multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.2.1 Identify relationships between pairs of angles; i.e., adjacent, vertical, complementary, and supplementary
6.2.2 Identify polygons; i.e., triangle, rectangle, square, rhombus, parallelogram, trapezoid, pentagon, hexagon, octagon
6.2.3 Describe the characteristics of a right triangle
7.2.2 Classify triangles based on side and angle measurements; i.e., scalene, isosceles, equilateral, acute, obtuse, and right
8.2.3 Identify the angles formed and the relationships between the angles when parallel lines are intersected by a transversal
8.2.4 Apply the Pythagorean Theorem to problems involving right triangles
8.2.7 Use scale, proportion, and congruency to solve problems involving similar figures
8.2.8 Use two-dimensional representations of three-dimensional objects to visualize and solve problems; e.g., those involving surface area and volume
9-10.2.3 Use trigonometric relationships and the Pythagorean Theorem to determine side lengths and angle measures in right triangles
9-10.2.9 Construct plane figures using traditional and/or technological tools; i.e., congruent segments, congruent angles, angle and segment bisectors, perpendicular and parallel lines

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system

6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.
8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
8.3.2 Explain the relationship between phases of matter and temperature
8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance

between the masses of the objects

8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.

9-10.1.1 Explain how models can be used to illustrate scientific principles

9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.3 Identify questions and concepts that guide scientific investigations

9-10.2.4 Formulate a testable hypothesis for a simple investigation

9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment

9-10.2.6 Design and conduct a guided investigation

9-10.2.7 Maintain clear and accurate records of scientific investigations

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.3.10 Describe the differences between series and parallel circuits

9-10.4.10 Explain the energy and organization related to trophic pyramids

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)

9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition

9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)

11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)

11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis

11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data

11-12.2.5 Use technology and mathematics to improve investigations and communications

11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)

11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 7: Introduction to Construction Geometry - recognize some of the basic shapes used in the construction industry and apply basic geometry to measure them.
Competency 2.7.3: Demonstrate how to measure angles using a protractor.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral

interpretations, and group discussions

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 2: Introduction to Construction Math
Topic 7: Introduction to Construction Geometry - recognize some of the basic shapes used in the construction industry and apply basic geometry to measure them.
Competency 2.7.4: Identify common shapes.

English/Language Arts

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Mathematics

6.2.1 Identify relationships between pairs of angles; i.e., adjacent, vertical, complementary, and supplementary
6.2.2 Identify polygons; i.e., triangle, rectangle, square, rhombus, parallelogram, trapezoid, pentagon, hexagon, octagon
6.2.3 Describe the characteristics of a right triangle
7.2.1 Make observations about relationships between two- and three-dimensional figures; e.g., a cube is made with six squares

7.2.2 Classify triangles based on side and angle measurements; i.e., scalene, isosceles, equilateral, acute, obtuse, and right
7.2.6 Build and sketch three-dimensional solids; e.g., using nets, manipulatives
8.2.2 Classify quadrilaterals based on side lengths, angle measures, and sets of parallel sides
8.2.3 Identify the angles formed and the relationships between the angles when parallel lines are intersected by a transversal
8.2.7 Use scale, proportion, and congruency to solve problems involving similar figures
8.2.8 Use two-dimensional representations of three-dimensional objects to visualize and solve problems; e.g., those involving surface area and volume
9-10.2.1 Identify the properties and attributes of two- and three-dimensional objects that distinguish one from another; e.g., a cylinder has two parallel circular bases
9-10.2.9 Construct plane figures using traditional and/or technological tools; i.e., congruent segments, congruent angles, angle and segment bisectors, perpendicular and parallel lines
9-10.2.10 Recognize images of the same object shown from different perspectives; i.e., a two-dimensional image of a three-dimensional object
9-10.2.11 Use geometric models to find solutions to problems in mathematics and other disciplines; e.g., art and architecture

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)

7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.
8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
8.3.2 Explain the relationship between phases of matter and temperature
8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects
8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
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9-10.2.4 Formulate a testable hypothesis for a simple investigation
9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment
9-10.2.6 Design and conduct a guided investigation
9-10.2.7 Maintain clear and accurate records of scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.3.10 Describe the differences between series and parallel circuits
9-10.4.10 Explain the energy and organization related to trophic pyramids
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

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9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)
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11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 7: Introduction to Construction Geometry - recognize some of the basic shapes used in the construction industry and apply basic geometry to measure them.
Competency 2.7.5: Explain how to cut a rectangle on the diagonal to produce two right angles.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
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9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
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12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved

6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
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7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
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Standard 2: Introduction to Construction Math
Topic 7: Introduction to Construction Geometry - recognize some of the basic shapes used in the construction industry and apply basic geometry to measure them.
Competency 2.7.6: Explain how to determine whether a piece of sheathing is a true rectangle.

English/Language Arts

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11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations
11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
11-12.2.5 Use technology and mathematics to improve investigations and communications
11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument

11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 7: Introduction to Construction Geometry - recognize some of the basic shapes used in the construction industry and apply basic geometry to measure them.
Competency 2.7.7: Explain how cutting a square on the diagonal produces two right angles

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.

8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
8.3.2 Explain the relationship between phases of matter and temperature
8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects
8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.4 Formulate a testable hypothesis for a simple investigation
9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment
9-10.2.6 Design and conduct a guided investigation
9-10.2.7 Maintain clear and accurate records of scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.3.10 Describe the differences between series and parallel circuits
9-10.4.10 Explain the energy and organization related to trophic pyramids
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)
9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition
9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)
11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations
11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
11-12.2.5 Use technology and mathematics to improve investigations and communications
11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 7: Introduction to Construction Geometry - recognize some of the basic shapes used in the construction industry and apply basic geometry to measure them.
Competency 2.7.8: Demonstrate how to determine the perimeter of a rectangle or square by measuring or adding the outside lines.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral

presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.2.1 Identify relationships between pairs of angles; i.e., adjacent, vertical, complementary, and supplementary
6.2.2 Identify polygons; i.e., triangle, rectangle, square, rhombus, parallelogram, trapezoid, pentagon, hexagon, octagon
6.2.3 Describe the characteristics of a right triangle
7.2.2 Classify triangles based on side and angle measurements; i.e., scalene, isosceles, equilateral, acute, obtuse, and right
8.2.3 Identify the angles formed and the relationships between the angles when parallel lines are intersected by a transversal
8.2.4 Apply the Pythagorean Theorem to problems involving right triangles
8.2.7 Use scale, proportion, and congruency to solve problems involving similar figures
8.2.8 Use two-dimensional representations of three-dimensional objects to visualize and solve problems; e.g., those involving surface area and volume
9-10.2.3 Use trigonometric relationships and the Pythagorean Theorem to determine side lengths and angle measures in right triangles
9-10.2.9 Construct plane figures using traditional and/or technological tools; i.e., congruent segments, congruent angles, angle and segment bisectors, perpendicular and parallel lines

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source

6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.
8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
8.3.2 Explain the relationship between phases of matter and temperature
8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects
8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.4 Formulate a testable hypothesis for a simple investigation

9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment
9-10.2.6 Design and conduct a guided investigation
9-10.2.7 Maintain clear and accurate records of scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.3.10 Describe the differences between series and parallel circuits
9-10.4.10 Explain the energy and organization related to trophic pyramids
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)
9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition
9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)
11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations
11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
11-12.2.5 Use technology and mathematics to improve investigations and communications
11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem

(e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 7: Introduction to Construction Geometry - recognize some of the basic shapes used in the construction industry and apply basic geometry to measure them.
Competency 2.7.9: Demonstrate how to use the Pythagorean formula on a right triangle.

English/Language Arts
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics
6.2.3 Describe the characteristics of a right triangle
8.2.4 Apply the Pythagorean Theorem to problems involving right triangles
9-10.2.3 Use trigonometric relationships and the Pythagorean Theorem to determine side lengths and angle measures in right triangles

Science
6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g.,

solar system, earth's interior)

6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
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8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations,

making accurate measurements, identifying and controlling variables)

8.3.2 Explain the relationship between phases of matter and temperature

8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects

8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.

9-10.1.1 Explain how models can be used to illustrate scientific principles

9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.3 Identify questions and concepts that guide scientific investigations

9-10.2.4 Formulate a testable hypothesis for a simple investigation

9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment

9-10.2.6 Design and conduct a guided investigation

9-10.2.7 Maintain clear and accurate records of scientific investigations

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.3.10 Describe the differences between series and parallel circuits

9-10.4.10 Explain the energy and organization related to trophic pyramids

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)

9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition

9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)

11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)

11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis

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11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
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11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 7: Introduction to Construction Geometry - recognize some of the basic shapes used in the construction industry and apply basic geometry to measure them.
Competency 2.7.10: Identify that the sum of the three angles of a triangle equals 180 degrees.

<u>English/Language Arts</u>
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details

10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.2.1 Identify relationships between pairs of angles; i.e., adjacent, vertical, complementary, and supplementary
6.2.2 Identify polygons; i.e., triangle, rectangle, square, rhombus, parallelogram, trapezoid, pentagon, hexagon, octagon
6.2.3 Describe the characteristics of a right triangle
7.2.2 Classify triangles based on side and angle measurements; i.e., scalene, isosceles, equilateral, acute, obtuse, and right
8.2.3 Identify the angles formed and the relationships between the angles when parallel lines are intersected by a transversal
8.2.4 Apply the Pythagorean Theorem to problems involving right triangles
8.2.7 Use scale, proportion, and congruency to solve problems involving similar figures
8.2.8 Use two-dimensional representations of three-dimensional objects to visualize and solve problems; e.g., those involving surface area and volume
9-10.2.3 Use trigonometric relationships and the Pythagorean Theorem to determine side lengths and angle measures in right triangles
9-10.2.9 Construct plane figures using traditional and/or technological tools; i.e., congruent segments, congruent angles, angle and segment bisectors, perpendicular and parallel lines

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the

environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.
8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
8.3.2 Explain the relationship between phases of matter and temperature
8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects
8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.4 Formulate a testable hypothesis for a simple investigation
9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment
9-10.2.6 Design and conduct a guided investigation
9-10.2.7 Maintain clear and accurate records of scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids,

liquids, gases)

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.3.10 Describe the differences between series and parallel circuits

9-10.4.10 Explain the energy and organization related to trophic pyramids

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)

9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition

9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)

11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)

11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis

11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data

11-12.2.5 Use technology and mathematics to improve investigations and communications

11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)

11-12.2.7 Design and conduct an independent investigation

11-12.2.8 Communicate and defend a scientific argument

11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles

11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)

11-12.3.13 Explain how magnetic forces relate to electric forces

11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 7: Introduction to Construction Geometry - recognize some of the basic shapes used in the construction industry and apply basic geometry to measure them.
Competency 2.7.11: Identify the circumference, diameter, and radius of a circle.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.4.1 Measure length to the nearest sixteenth of an inch
6.4.4 Distinguish among perimeter, area, surface area, and volume
6.4.5 Select appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
6.4.6 Use formulas to determine the circumference and area of circles and the perimeter and area of triangles and parallelograms
7.2.6 Build and sketch three-dimensional solids; e.g., using nets, manipulatives
7.4.3 Select the appropriate measure of perimeter, area, surface area, or volume to solve a problem
7.4.4 Select and use appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
7.4.7 Use area formulas to determine the surface area of right cylinders
7.4.8 Use formulas to determine the volume of right cylinders

8.2.7 Use scale, proportion, and congruency to solve problems involving similar figures
8.2.8 Use two-dimensional representations of three-dimensional objects to visualize and solve problems; e.g., those involving surface area and volume
8.4.3 Use formulas to determine the surface area and volume of right cones and spheres

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
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6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
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9-10.2.7 Maintain clear and accurate records of scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.3.10 Describe the differences between series and parallel circuits
9-10.4.10 Explain the energy and organization related to trophic pyramids
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
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9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition
9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)
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equilibrium)
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations
11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
11-12.2.5 Use technology and mathematics to improve investigations and communications
11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 7: Introduction to Construction Geometry - recognize some of the basic shapes used in the construction industry and apply basic geometry to measure them.
Competency 2.7.12: Demonstrate how to use formulas to find the circumference of a variety of circles.

<u>English/Language Arts</u>
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
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7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
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9.4.4 Engage in a group discussion
10.1.4 Use relevant information
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12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.4.1 Measure length to the nearest sixteenth of an inch
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6.4.5 Select appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
6.4.6 Use formulas to determine the circumference and area of circles and the perimeter and area of triangles and parallelograms
7.2.6 Build and sketch three-dimensional solids; e.g., using nets, manipulatives
7.4.3 Select the appropriate measure of perimeter, area, surface area, or volume to solve a problem
7.4.4 Select and use appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
7.4.7 Use area formulas to determine the surface area of right cylinders
7.4.8 Use formulas to determine the volume of right cylinders
8.2.7 Use scale, proportion, and congruency to solve problems involving similar figures
8.2.8 Use two-dimensional representations of three-dimensional objects to visualize and solve problems; e.g., those involving surface area and volume
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Science

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11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 7: Introduction to Construction Geometry - recognize some of the basic shapes used in the construction industry and apply basic geometry to measure them.
Competency 2.7.13: Explain when and how to measure the surface of an object by calculating the area of a shape.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
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10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.2.1 Identify relationships between pairs of angles; i.e., adjacent, vertical, complementary, and supplementary
6.2.2 Identify polygons; i.e., triangle, rectangle, square, rhombus, parallelogram, trapezoid, pentagon, hexagon, octagon

6.2.3 Describe the characteristics of a right triangle
7.2.1 Make observations about relationships between two- and three-dimensional figures; e.g., a cube is made with six squares
7.2.2 Classify triangles based on side and angle measurements; i.e., scalene, isosceles, equilateral, acute, obtuse, and right
7.2.6 Build and sketch three-dimensional solids; e.g., using nets, manipulatives
8.2.2 Classify quadrilaterals based on side lengths, angle measures, and sets of parallel sides
8.2.3 Identify the angles formed and the relationships between the angles when parallel lines are intersected by a transversal
8.2.7 Use scale, proportion, and congruency to solve problems involving similar figures
8.2.8 Use two-dimensional representations of three-dimensional objects to visualize and solve problems; e.g., those involving surface area and volume
9-10.2.1 Identify the properties and attributes of two- and three-dimensional objects that distinguish one from another; e.g., a cylinder has two parallel circular bases
9-10.2.9 Construct plane figures using traditional and/or technological tools; i.e., congruent segments, congruent angles, angle and segment bisectors, perpendicular and parallel lines
9-10.2.10 Recognize images of the same object shown from different perspectives; i.e., a two-dimensional image of a three-dimensional object
9-10.2.11 Use geometric models to find solutions to problems in mathematics and other disciplines; e.g., art and architecture

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell

division)

7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)

7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)

7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)

7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)

7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)

7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)

7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.

8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems

8.2.2 Use evidence to generate descriptions, explanations, predictions, and models

8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data

8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)

8.3.2 Explain the relationship between phases of matter and temperature

8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects

8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.

9-10.1.1 Explain how models can be used to illustrate scientific principles

9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.3 Identify questions and concepts that guide scientific investigations

9-10.2.4 Formulate a testable hypothesis for a simple investigation

9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment

9-10.2.6 Design and conduct a guided investigation

9-10.2.7 Maintain clear and accurate records of scientific investigations

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.3.10 Describe the differences between series and parallel circuits

9-10.4.10 Explain the energy and organization related to trophic pyramids
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)
9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition
9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)
11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations
11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
11-12.2.5 Use technology and mathematics to improve investigations and communications
11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 7: Introduction to Construction Geometry - recognize some of the basic shapes used in the construction industry and apply basic geometry to measure them.
Competency 2.7.14: Identify the right, equilateral, isosceles, and scalene triangles used in construction.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.2.1 Identify relationships between pairs of angles; i.e., adjacent, vertical, complementary, and supplementary
6.2.2 Identify polygons; i.e., triangle, rectangle, square, rhombus, parallelogram, trapezoid, pentagon, hexagon, octagon
6.2.3 Describe the characteristics of a right triangle
7.2.2 Classify triangles based on side and angle measurements; i.e., scalene, isosceles, equilateral, acute, obtuse, and right
8.2.3 Identify the angles formed and the relationships between the angles when parallel lines are intersected by a transversal
8.2.4 Apply the Pythagorean Theorem to problems involving right triangles
8.2.7 Use scale, proportion, and congruency to solve problems involving similar figures
8.2.8 Use two-dimensional representations of three-dimensional objects to visualize and solve problems; e.g., those involving surface area and volume

9-10.2.3 Use trigonometric relationships and the Pythagorean Theorem to determine side lengths and angle measures in right triangles
9-10.2.9 Construct plane figures using traditional and/or technological tools; i.e., congruent segments, congruent angles, angle and segment bisectors, perpendicular and parallel lines

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ

transplant, medical scanning devices)

7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.

8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems

8.2.2 Use evidence to generate descriptions, explanations, predictions, and models

8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data

8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)

8.3.2 Explain the relationship between phases of matter and temperature

8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects

8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.

9-10.1.1 Explain how models can be used to illustrate scientific principles

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9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.3 Identify questions and concepts that guide scientific investigations

9-10.2.4 Formulate a testable hypothesis for a simple investigation

9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment

9-10.2.6 Design and conduct a guided investigation

9-10.2.7 Maintain clear and accurate records of scientific investigations

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.3.10 Describe the differences between series and parallel circuits

9-10.4.10 Explain the energy and organization related to trophic pyramids

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)

9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition

9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)

11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical

equilibrium)
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations
11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
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11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 7: Introduction to Construction Geometry - recognize some of the basic shapes used in the construction industry and apply basic geometry to measure them.
Competency 2.7.15: Identify the cubic units of measure used to describe the volume of different spaces.

<u>English/Language Arts</u>
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
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7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.4.4 Distinguish among perimeter, area, surface area, and volume
6.4.5 Select appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
6.4.8 Use formulas to determine the volume of rectangular prisms
7.1.10 Use proportions to solve problems
7.2.6 Build and sketch three-dimensional solids; e.g., using nets, manipulatives
7.4.3 Select the appropriate measure of perimeter, area, surface area, or volume to solve a problem
7.4.4 Select and use appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
7.4.8 Use formulas to determine the volume of right cylinders
8.2.8 Use two-dimensional representations of three-dimensional objects to visualize and solve problems; e.g., those involving surface area and volume
8.4.3 Use formulas to determine the surface area and volume of right cones and spheres
9-10.2.1 Identify the properties and attributes of two- and three-dimensional objects that distinguish one from another; e.g., a cylinder has two parallel circular bases
9-10.2.10 Recognize images of the same object shown from different perspectives; i.e., a two-dimensional image of a three-dimensional object

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
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apron, eye wash station)

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9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)

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11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data

11-12.2.5 Use technology and mathematics to improve investigations and communications

11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)

11-12.2.7 Design and conduct an independent investigation

11-12.2.8 Communicate and defend a scientific argument

11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles

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11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 7: Introduction to Construction Geometry - recognize some of the basic shapes used in the construction industry and apply basic geometry to measure them.
Competency 2.7.16: Use procedures to determine the volume of a rectangle and the volume of a square.

English/Language Arts
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
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7.1.1 Generate and evaluate questions relevant to research topic
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7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
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9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics
6.4.4 Distinguish among perimeter, area, surface area, and volume
6.4.5 Select appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume

6.4.8 Use formulas to determine the volume of rectangular prisms
7.1.10 Use proportions to solve problems
7.2.6 Build and sketch three-dimensional solids; e.g., using nets, manipulatives
7.4.3 Select the appropriate measure of perimeter, area, surface area, or volume to solve a problem
7.4.4 Select and use appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
7.4.8 Use formulas to determine the volume of right cylinders
8.2.8 Use two-dimensional representations of three-dimensional objects to visualize and solve problems; e.g., those involving surface area and volume
8.4.3 Use formulas to determine the surface area and volume of right cones and spheres
9-10.2.1 Identify the properties and attributes of two- and three-dimensional objects that distinguish one from another; e.g., a cylinder has two parallel circular bases
9-10.2.10 Recognize images of the same object shown from different perspectives; i.e., a two-dimensional image of a three-dimensional object

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
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6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
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6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g.,

journals, lab reports, diagrams, presentations, discussions)

7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)

7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)

7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.

8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems

8.2.2 Use evidence to generate descriptions, explanations, predictions, and models

8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data

8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)

8.3.2 Explain the relationship between phases of matter and temperature

8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects

8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.

9-10.1.1 Explain how models can be used to illustrate scientific principles

9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.3 Identify questions and concepts that guide scientific investigations

9-10.2.4 Formulate a testable hypothesis for a simple investigation

9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment

9-10.2.6 Design and conduct a guided investigation

9-10.2.7 Maintain clear and accurate records of scientific investigations

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)

9-10.3.5 Identify the reactants and products in a chemical reaction

9-10.3.10 Describe the differences between series and parallel circuits

9-10.4.10 Explain the energy and organization related to trophic pyramids

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)

9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g.,

household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition

9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)

11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)

11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis

11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data

11-12.2.5 Use technology and mathematics to improve investigations and communications

11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)

11-12.2.7 Design and conduct an independent investigation

11-12.2.8 Communicate and defend a scientific argument

11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles

11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)

11-12.3.13 Explain how magnetic forces relate to electric forces

11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 7: Introduction to Construction Geometry - recognize some of the basic shapes used in the construction industry and apply basic geometry to measure them.
Competency 2.7.17: Explain how to calculate the volume of a cube.

<u>English/Language Arts</u>

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message
11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.4.4 Distinguish among perimeter, area, surface area, and volume
6.4.5 Select appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
6.4.8 Use formulas to determine the volume of rectangular prisms
7.1.10 Use proportions to solve problems
7.2.6 Build and sketch three-dimensional solids; e.g., using nets, manipulatives
7.4.3 Select the appropriate measure of perimeter, area, surface area, or volume to solve a problem
7.4.4 Select and use appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
7.4.8 Use formulas to determine the volume of right cylinders
8.2.8 Use two-dimensional representations of three-dimensional objects to visualize and solve problems; e.g., those involving surface area and volume
8.4.3 Use formulas to determine the surface area and volume of right cones and spheres
9-10.2.1 Identify the properties and attributes of two- and three-dimensional objects that distinguish one from another; e.g., a cylinder has two parallel circular bases
9-10.2.10 Recognize images of the same object shown from different perspectives; i.e., a two-dimensional image of a three-dimensional object

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)

6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
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8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)

8.3.2 Explain the relationship between phases of matter and temperature
8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects
8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.
9-10.1.1 Explain how models can be used to illustrate scientific principles
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9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.4 Formulate a testable hypothesis for a simple investigation
9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment
9-10.2.6 Design and conduct a guided investigation
9-10.2.7 Maintain clear and accurate records of scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.3.10 Describe the differences between series and parallel circuits
9-10.4.10 Explain the energy and organization related to trophic pyramids
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)
9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition
9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)
11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations
11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
11-12.2.5 Use technology and mathematics to improve investigations and communications

11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 7: Introduction to Construction Geometry - recognize some of the basic shapes used in the construction industry and apply basic geometry to measure them.
Competency 2.7.18: Explain how to find the volume of cylinder.

<u>English/Language Arts</u>
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.4.4 Engage in a group discussion
10.1.4 Use relevant information
10.3.7 Use a variety of supporting details
10.4.3 Formulate questions in response to a verbal message

11.3.5 Use a variety of supporting details
12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.4.4 Distinguish among perimeter, area, surface area, and volume
6.4.5 Select appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
6.4.8 Use formulas to determine the volume of rectangular prisms
7.1.10 Use proportions to solve problems
7.2.6 Build and sketch three-dimensional solids; e.g., using nets, manipulatives
7.4.3 Select the appropriate measure of perimeter, area, surface area, or volume to solve a problem
7.4.4 Select and use appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
7.4.8 Use formulas to determine the volume of right cylinders
8.2.8 Use two-dimensional representations of three-dimensional objects to visualize and solve problems; e.g., those involving surface area and volume
8.4.3 Use formulas to determine the surface area and volume of right cones and spheres
9-10.2.1 Identify the properties and attributes of two- and three-dimensional objects that distinguish one from another; e.g., a cylinder has two parallel circular bases
9-10.2.10 Recognize images of the same object shown from different perspectives; i.e., a two-dimensional image of a three-dimensional object

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
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6.7.2 Explain how recycling and conservation affect populations, resources, and the environment

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9-10.2.6 Design and conduct a guided investigation
9-10.2.7 Maintain clear and accurate records of scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)

9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.3.10 Describe the differences between series and parallel circuits
9-10.4.10 Explain the energy and organization related to trophic pyramids
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
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11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)
11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 2: Introduction to Construction Math
Topic 7: Introduction to Construction Geometry - recognize some of the basic shapes used in the construction industry and apply basic geometry to measure them.
Competency 2.7.19: Demonstrate how to calculate the volume of shapes.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.5 Speak to entertain an audience; e.g., story telling
8.1.1 Use questions to narrow research topic
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
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9.4.4 Engage in a group discussion
10.1.4 Use relevant information
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12.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

Mathematics

6.4.4 Distinguish among perimeter, area, surface area, and volume
6.4.5 Select appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
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7.2.6 Build and sketch three-dimensional solids; e.g., using nets, manipulatives
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9-10.2.10 Recognize images of the same object shown from different perspectives; i.e., a two-dimensional image of a three-dimensional object

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)

6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)

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7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)

7.1.4 Identify the relationship between form and function (e.g., wings, fins and feet)

7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)

7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)

7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)

7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

7.7.2 Identify the factors (e.g., pollution, heredity, diet, virus, bacteria, parasite) that may result in disease.
8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
8.3.2 Explain the relationship between phases of matter and temperature
8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects
8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a cell)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.4 Formulate a testable hypothesis for a simple investigation
9-10.2.5 Identify the independent and dependent variables, the control, and the constants when conducting an experiment
9-10.2.6 Design and conduct a guided investigation
9-10.2.7 Maintain clear and accurate records of scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.3.5 Identify the reactants and products in a chemical reaction
9-10.3.10 Describe the differences between series and parallel circuits
9-10.4.10 Explain the energy and organization related to trophic pyramids
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)
9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition
9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)
11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical

equilibrium)

11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis

11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data

11-12.2.5 Use technology and mathematics to improve investigations and communications

11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)

11-12.2.7 Design and conduct an independent investigation

11-12.2.8 Communicate and defend a scientific argument

11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles

11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)

11-12.3.13 Explain how magnetic forces relate to electric forces

11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)

11-12.7.2 Explain ways renewable and nonrenewable resources are managed (e.g., land reclamation, forest management, CRP, hunting licenses, energy –conserving technologies)

11-12.7.3 Explain the economic and social impact of using alternative energy resources

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance**.**
Topic 1: Hammers
Competency 3.1.1: Discuss the consequences of failing to focus when using a hammer.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise

11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

Science
6.1.3 Explain the connection between cause and effect in a system
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.3.7 Use Newton's Laws to describe the motion of an object
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance**.**
Topic 1: Hammers
Competency 3.1.2: Describe the uses of a claw hammer.

English/Language Arts
6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
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access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
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11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
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11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance**.**
Topic 1: Hammers
Competency 3.1.3: Demonstrate how to drive a nail and to pull a nail.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
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7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
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9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
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9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary

10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
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11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
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11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance**.**
Topic 1: Hammers
Competency 3.1.4: Explain why a ball peen hammer with a cast head should not be used.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work

6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
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11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary

12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.3 Explain the connection between cause and effect in a system
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.3.7 Use Newton's Laws to describe the motion of an object
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance**.**
Topic 1: Hammers
Competency 3.1.5: Discuss the consequences of striking the head of a hammer with another hammer.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
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7.1.1 Generate and evaluate questions relevant to research topic
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7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral

presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.3 Explain the connection between cause and effect in a system
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.3.7 Use Newton's Laws to describe the motion of an object
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g.,

gravitational force, vectors, velocity, friction)

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance**.**
Topic 1: Hammers
Competency 3.1.6: Explain the procedures to use a ball peen hammer.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
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10.1.1 Form questions to focus research
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10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
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10.3.9 Use precise language to describe people, places, and things

10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
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12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.3 Explain the connection between cause and effect in a system
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.3.7 Use Newton's Laws to describe the motion of an object
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance**.**
Topic 1: Hammers
Competency 3.1.7: Demonstrate how to properly grip the handle of the hammer

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
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7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
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11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance**.**
Topic 1: Hammers
Competency 3.1.8: Discuss the relationship between distance and force when using a hammer.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question

9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)

11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance**.**
Topic 1: Hammers
Competency 3.1.9: Identify tips for maintaining and safely using hammers.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details

10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
9-10.2.3 Identify questions and concepts that guide scientific investigations
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance**.**
Topic 1: Hammers
Competency 3.1.10: Demonstrate how to properly use a claw hammer, a ball peen hammer, and a mallet.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking

7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author’s bias, and author’s expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance**.**
Topic 2: Screwdrivers
Competency 3.2.1: Compare the common types of screw heads.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

- No existing North Dakota Science standard

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance**.**
Topic 2: Screwdrivers
Competency 3.2.2: Discuss methods to select the appropriate screwdriver for a particular screw.

English/Language Arts

Math

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary

11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance**.**
Topic 2: Screwdrivers
Competency 3.2.3: Explain how to ensure correct fit.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral

presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

- No existing North Dakota Science standard

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance**.**
Topic 2: Screwdrivers
Competency 3.2.4: Explain the problems that could result from using a dirty screwdriver.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information

11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

- No existing North Dakota Science standard

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance**.**
Topic 2: Screwdrivers
Competency 3.2.5: Practice using a screwdriver without stripping the screw head.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations

8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.4 Use appropriate tools and techniques to gather and analyze data

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance**.**
Topic 2: Screwdrivers
Competency 3.2.6: Explain how to prevent the blade from slipping when starting a screw.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author’s bias, and author’s expertise

11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

- No existing North Dakota Science standard

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance**.**
Topic 2: Screwdrivers
Competency 3.2.7: Discuss procedures for maintaining and safely using screwdrivers.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker

7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance**.**
Topic 2: Screwdrivers
Competency 3.2.8: Discuss that a screw should not be used as an electrical tester.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information

11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.3 Explain the connection between cause and effect in a system
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance**.**
Topic 3: Sledgehammers
Competency 3.3.1: Discuss the difference between double-face and cross peen sledgehammers.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker

6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

- No existing North Dakota Science standard

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance**.**
Topic 3: Sledgehammers
Competency 3.3.2: Demonstrate the correct way to secure an object before hitting it with a sledgehammer.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information

10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

- No existing North Dakota Science standard

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance**.**
Topic 3: Sledgehammers
Competency 3.3.3: Explain how to use a long-handled sledgehammer.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic

7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.3 Explain the connection between cause and effect in a system
6.3.2 Use simple machines to change forces
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance**.**
Topic 3: Sledgehammers
Competency 3.3.4: Discuss the importance of using two hands when holding a sledgehammer.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform

9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

- No existing North Dakota Science standard

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance**.**
Topic 3: Sledgehammers
Competency 3.3.5: Discuss the consequences of swinging a sledgehammer behind your body or head

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author’s bias, and author’s expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral

interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

- No existing North Dakota Mathematics standard

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance**.**
Topic 3: Sledgehammers
Competency 3.3.6: Explain considerations for maintaining and safely using sledgehammers.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information

9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.3 Explain the connection between cause and effect in a system
7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.3.7 Use Newton's Laws to describe the motion of an object
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance**.**
Topic 3: Sledgehammers
Competency 3.3.7: Explain how to use the right amount of force for the job.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary

10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.3 Explain the connection between cause and effect in a system
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
9-10.3.7 Use Newton's Laws to describe the motion of an object
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 4: Ripping Bars and Nail Pullers
Competency 3.4.1: Discuss the tools that are used to rip and pry apart woodwork.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker

6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.4 Use appropriate tools and techniques to gather and analyze data
6.3.2 Use simple machines to change forces
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 4: Ripping Bars and Nail Pullers
Competency 3.4.2: Use the procedures for safely using a ripping bar.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information

9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.3 Explain the connection between cause and effect in a system
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.3.2 Use simple machines to change forces
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 4: Ripping Bars and Nail Pullers
Competency 3.4.3: Demonstrate how to pull nails using a cat's paws, chisel bars, and flat bars.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations

11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.3 Explain the connection between cause and effect in a system
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.3.2 Use simple machines to change forces
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 4: Ripping Bars and Nail Pullers
Competency 3.4.4: Discuss the importance of protecting yourself from debris when using a ripping bar or nail puller.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker

6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

7.7.1 Explain how science affects personal health (e.g., injury prevention, immunization, organ transplant, medical scanning devices)

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 4: Ripping Bars and Nail Pullers
Competency 3.4.5: Explain how most accidents occur when using nail pullers.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations

10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.3 Explain the connection between cause and effect in a system
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.3.2 Use simple machines to change forces
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 5: Pliers and Wire Cutters
Competency 3.5.1: Identify the common types of pliers.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author’s bias, and author’s expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral

interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

- No existing North Dakota Science standard

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 5: Pliers and Wire Cutters
Competency 3.5.2: Explain why pliers cannot be used on nuts or bolt heads.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information

9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

- No existing North Dakota Mathematics standard

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 5: Pliers and Wire Cutters
Competency 3.5.3: Explain the procedure to use slip-joint, long-nose, lineman, tongue-and-groove, and Vise-Grip pliers.

English/Language Arts

6.1.1 Pose relevant research questions

6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.3 Explain the connection between cause and effect in a system
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.3.2 Use simple machines to change forces
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 5: Pliers and Wire Cutters
Competency 3.5.4: Discuss the type of tasks for which each plier (slip-joint, long-nose, lineman, tongue-and-groove, and Vise-Grip pliers) is used.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker

7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.3 Explain the connection between cause and effect in a system
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.3.2 Use simple machines to change forces
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles,

apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 5: Pliers and Wire Cutters
Competency 3.5.5: Demonstrate how to place the jaws of the different pliers on the objects to be held.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres

10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

- No existing North Dakota Science standard

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 5: Pliers and Wire Cutters
Competency 3.5.6: Demonstrate how to cut, hold, and bend wire using the different types of pliers.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
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7.1.1 Generate and evaluate questions relevant to research topic

7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
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9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
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10.1.1 Form questions to focus research
10.1.4 Use relevant information
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12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
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12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.3 Explain the connection between cause and effect in a system
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.3.2 Use simple machines to change forces
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 5: Pliers and Wire Cutters
Competency 3.5.7: Discuss safety procedures for avoiding injuries when using pliers.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
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7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
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8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
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9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning

9.3.8 Use supporting details
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10.1.1 Form questions to focus research
10.1.4 Use relevant information
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10.3.2 Defend a personal opinion using facts as support
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11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.4 Use appropriate tools and techniques to gather and analyze data
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 5: Pliers and Wire Cutters
Competency 3.5.8: Explain why one should never rock pliers from side to side when cutting.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral

interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

- No existing North Dakota Science standard

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 6: Rulers and Other Measuring Tools
Competency 3.6.1: Use basic measuring tools and determine how to select the proper tool for the job.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform

9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
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10.3.9 Use precise language to describe people, places, and things
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11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
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12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.4 Use appropriate tools and techniques to gather and analyze data
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 6: Rulers and Other Measuring Tools
Competency 3.6.2: Explain why thin rulers measure more accurately

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
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7.4.4 Construct questions in response to a speaker
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9.1.1 Choose a broad topic, state the problem, or question
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10.1.4 Use relevant information
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10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
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10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose

11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 6: Rulers and Other Measuring Tools
Competency 3.6.3: Identify the four sets of marks on a steel rule.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
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7.1.1 Generate and evaluate questions relevant to research topic
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9.1.1 Choose a broad topic, state the problem, or question
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11.2.6 Apply prior knowledge of content to interpret meaning of text
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11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics
6.1.1 Use a fraction to represent parts of a whole, division, or a ratio
6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
6.1.4 Compare and order fractions, decimals, mixed numbers and integers
7.1.1 Use ratios and proportions to represent relationships

Science
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 6: Rulers and Other Measuring Tools

Competency 3.6.4: Review the procedure for using a steel measuring tape

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author’s bias, and author’s expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text

11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics
6.1.1 Use a fraction to represent parts of a whole, division, or a ratio
6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
6.1.4 Compare and order fractions, decimals, mixed numbers and integers
7.1.1 Use ratios and proportions to represent relationships

Science
6.2.4 Use appropriate tools and techniques to gather and analyze data
9-10.2.3 Identify questions and concepts that guide scientific investigations
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 6: Rulers and Other Measuring Tools
Competency 3.6.5: Discuss the advantage of using a wooding folding rule

English/Language Arts
6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension

7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

- No existing North Dakota Science standard

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 6: Rulers and Other Measuring Tools
Competency 3.6.6: Use rulers and measuring tools.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise

11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics
6.1.1 Use a fraction to represent parts of a whole, division, or a ratio
6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
6.1.4 Compare and order fractions, decimals, mixed numbers and integers
7.1.1 Use ratios and proportions to represent relationships

Science
6.2.4 Use appropriate tools and techniques to gather and analyze data
9-10.2.3 Identify questions and concepts that guide scientific investigations
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 6: Rulers and Other Measuring Tools
Competency 3.6.7: Discuss the importance of taking accurate measurements.

English/Language Arts
6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
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access information
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7.2.4 Use prior knowledge and experiences to aid text comprehension
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7.4.4 Construct questions in response to a speaker
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9.1.1 Choose a broad topic, state the problem, or question
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10.1.4 Use relevant information
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10.3.2 Defend a personal opinion using facts as support
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11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
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Mathematics

6.1.1 Use a fraction to represent parts of a whole, division, or a ratio
6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
6.1.4 Compare and order fractions, decimals, mixed numbers and integers
7.1.1 Use ratios and proportions to represent relationships

Science

- No existing North Dakota Science standard

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 7: Levels
Competency 3.7.1: Explain how levels are used to determine whether a surface is level and/or plumb.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
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7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
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8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations

10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
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11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
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11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.4 Use appropriate tools and techniques to gather and analyze data
6.6.1 Identify examples of how technologies have evolved
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 7: Levels
Competency 3.7.2: Demonstrate how to use and read a spirit level to determine whether a surface is either level and/or plumb

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral

interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

- No existing North Dakota Science standard

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 7: Levels
Competency 3.7.3: Demonstrate the procedures for preventing damage to precision instruments.

English/Language Arts

Mathematics

- No existing North Dakota Mathematics standard

Science

- No existing North Dakota Science standard

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 8: Squares
Competency 3.8.1: Discuss the types of squares used for marking, checking and measuring.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking

7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author’s bias, and author’s expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

9-10.2.3 Identify questions and concepts that guide scientific investigations

11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 8: Squares
Competency 3.8.2: Explain how squares are used to check the square ness of adjoining surfaces.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
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7.1.1 Generate and evaluate questions relevant to research topic
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7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
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10.1.1 Form questions to focus research
10.1.4 Use relevant information
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10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
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11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
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11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

- No existing North Dakota Science standard

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 8: Squares
Competency 3.8.3: Demonstrate how to use a try square to lay out cutting lines, check a joint to make sure it is square, and check a planned piece of lumber to see whether it is warped or cupped

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
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7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while

speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

9-10.2.3 Identify questions and concepts that guide scientific investigations
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 8: Squares
Competency 3.8.4: Discuss the tasks for which a combination square can be used.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details

9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
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11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

9-10.2.3 Identify questions and concepts that guide scientific investigations
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 8: Squares
Competency 3.8.5: Demonstrate how to mark 45- and 90-degree angles using a combination square.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension

6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
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8.2.2 Use prior knowledge and experiences to aid text comprehension
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10.1.4 Use relevant information
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11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy

12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

9-10.2.3 Identify questions and concepts that guide scientific investigations
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 9: Plumb Bob
Competency 3.9.1: Explain how a plumb bob uses gravity.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
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9.1.1 Choose a broad topic, state the problem, or question
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9.1.6 Summarize information

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12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
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12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects
9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and

maintenance
Topic 9: Plumb Bob
Competency 3.9.2: Explain how to determine whether a line is vertical.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
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9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
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9.3.8 Use supporting details
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9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
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11.1.3 Evaluate reliability, validity, comprehensiveness, author’s bias, and author’s expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres

11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects
9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 9: Plumb Bob
Competency 3.9.3: Demonstrate how to hang a plumb bob and accurately mark the point below the tip of the bob.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
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6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
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9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
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11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

8.3.4 Explain how all objects exert gravitational force and this force is affected by the distance between the masses of the objects
9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 9: Plumb Bob
Competency 3.9.4: Discuss the consequences of dropping the plumb bob on its point.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
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9.1.1 Choose a broad topic, state the problem, or question
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9.4.2 Use visual aides effectively in oral presentations
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10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations

11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

- No existing North Dakota Science standard

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 10: Chalk Lines
Competency 3.10.1: Explain how to use a chalk line to mark a line.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
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7.2.4 Use prior knowledge and experiences to aid text comprehension
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7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
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10.1.1 Form questions to focus research
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10.3.2 Defend a personal opinion using facts as support
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11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
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12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 10: Chalk Lines
Competency 3.10.2: Demonstrate how to use a self-chalker/plumb bob to mark the line between two points.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
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10.1.4 Use relevant information
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11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise

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11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

- No existing North Dakota Mathematics standard

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 10: Chalk Lines
Competency 3.10.3: Discuss that damp or wet chalk is unusable.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker

7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and

maintenance
Topic 11: Bench Vises
Competency 3.11.1: Explain how vises enable one person to do work that would normally require two people.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information

11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 11: Bench Vises
Competency 3.11.2: Discuss the consequences of using a hammer to tighten the handle of a bench vise.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker

7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and

maintenance
Topic 11: Bench Vises
Competency 3.11.3: Explain how to properly use a vise to avoid damage to the vise and the object it is holding.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information

11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 12: Clamps
Competency 3.12.1: Identify the various types and sizes of clamps.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations

8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

- No existing North Dakota Science standard

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and

maintenance
Topic 12: Clamps
Competency 3.12.2: Explain procedures for maintaining and safely using clamps.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author’s bias, and author’s expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres

11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

- No existing North Dakota Mathematics standard

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 13: Saws
Competency 3.13.1: Identify the differences among the types of saws.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

- No existing North Dakota Mathematics standard

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and

maintenance
Topic 13: Saws
Competency 3.13.2: Explain how shape, number, and pitch of teeth make it possible to cut different materials.

<u>English/Language Arts</u>

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information

11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

- No existing North Dakota Mathematics standard

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 13: Saws
Competency 3.13.3: Discuss the classifications used for handsaws.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations

8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

- No existing North Dakota Mathematics standard

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 13: Saws
Competency 3.13.4: Recognize that the fewer teeth per inch (tpi), the coarser and faster the cut.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations

11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

- No existing North Dakota Mathematics standard

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 13: Saws
Competency 3.13.5: Explain how to cut across the grain of wood.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

- No existing North Dakota Mathematics standard

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 13: Saws
Competency 3.13.6: Demonstrate making a straight cut using a variety of crosscut and ripsaws.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information

11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.4 Use appropriate tools and techniques to gather and analyze data
9-10.2.3 Identify questions and concepts that guide scientific investigations
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 13: Saws
Competency 3.13.7: Use safety procedures when working with handsaws.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to

inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 14: Files and Rasps
Competency 3.14.1: Discuss the various types of files and rasps and explain how they are used to shape material.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details

10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.4 Use appropriate tools and techniques to gather and analyze data
9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 14: Files and Rasps
Competency 3.14.2: Demonstrate how to choose a file or rasp to fit the area and material you are filing.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information

7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.4 Use appropriate tools and techniques to gather and analyze data
9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 14: Files and Rasps
Competency 3.14.3: Discuss the various file classifications and their uses.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary

10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.4 Use appropriate tools and techniques to gather and analyze data
9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 14: Files and Rasps
Competency 3.14.4: Demonstrate filing techniques.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information

7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.4 Use appropriate tools and techniques to gather and analyze data
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 14: Files and Rasps
Competency 3.14.5: Explain that, if not cared for properly, files will become unusable.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres

10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 14: Files and Rasps
Competency 3.14.6: Perform maintenance procedures for working with files

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to

access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 15: Chisels and Punches
Competency 3.15.1: Explain how chisels are used to cut and shape wood, stone, or metal.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres

10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.4 Use appropriate tools and techniques to gather and analyze data
9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 15: Chisels and Punches
Competency 3.15.2: Demonstrate how to use a wood chisel to make a notch in wooden material.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking

7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.4 Use appropriate tools and techniques to gather and analyze data
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 15: Chisels and Punches
Competency 3.15.3: Demonstrate how to use a cold chisel to cut metal rivets.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations

9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.4 Use appropriate tools and techniques to gather and analyze data
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 15: Chisels and Punches
Competency 3.15.4: Compare center, prick, and tapered punches.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work

6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary

12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 15: Chisels and Punches
Competency 3.15.5: List the guidelines for working with punches and chisels.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details

9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.4 Use appropriate tools and techniques to gather and analyze data
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 15: Chisels and Punches
Competency 3.15.6: Explain how to verify whether a chisel's blade is beveled at the correct angle.

English/Language Arts

6.1.1 Pose relevant research questions

6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 15: Chisels and Punches
Competency 3.15.7: Discuss problems that can result from using a chisel with a mushroom-shaped head.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform

9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 16: Wrenches
Competency 3.16.1: Identify the different types of nonadjustable wrenches.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose

11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 16: Wrenches
Competency 3.16.2: Compare the types of wrenches and how they are used.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform

9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.4 Use appropriate tools and techniques to gather and analyze data
9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 16: Wrenches
Competency 3.16.3: Explain when it is appropriate to use a striking wrench and how to avoid damaging screw threads and bolt heads.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose

11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 16: Wrenches
Competency 3.16.4: Demonstrate how to select the correct size wrench according to the nut or bolt size.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question

9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

6.1.1 Use a fraction to represent parts of a whole, division, or a ratio

Science

8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 16: Wrenches
Competency 3.16.5: Explain how pipe, spud, and crescent wrenches can be adjusted.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise

11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.4 Use appropriate tools and techniques to gather and analyze data
9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 16: Wrenches
Competency 3.16.6: Demonstrate selecting and using adjustable wrenches.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.4 Use appropriate tools and techniques to gather and analyze data
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)

9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 16: Wrenches
Competency 3.16.7: Explain the types of problems that can occur if the jaws are improperly adjusted.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details

10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 16: Wrenches
Competency 3.16.8: Discuss the procedures for maintaining and safely using wrenches.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension

7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.4 Use appropriate tools and techniques to gather and analyze data
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 17: Sockets and Ratchets
Competency 3.17.1: Discuss the role of sockets and ratchets.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres

10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 17: Sockets and Ratchets
Competency 3.17.2: Identify the level on a ratchet handle, and explain how it can be used to change the turning direction.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic

7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 17: Sockets and Ratchets
Competency 3.17.3: Explain the procedures to use sockets and ratchets.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information

10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.4 Use appropriate tools and techniques to gather and analyze data
6.3.2 Use simple machines to change forces
9-10.2.2 Use appropriate safety equipment and precautions during investigations (e.g., goggles, apron, eye wash station)
9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 18: Torque Wrenches
Competency 3.18.1: Explain how torque wrenches measure resistance to turning.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience,

literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author’s bias, and author’s expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data

9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 18: Torque Wrenches
Competency 3.18.2: Demonstrate how to determine and set the desired number of inch-pounds or foot-pounds of torque.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details

9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
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11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 18: Torque Wrenches
Competency 3.18.3: Demonstrate torque sequence and tightening bolts using a torque wrench.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension

6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
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8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
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9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy

12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.4 Use appropriate tools and techniques to gather and analyze data
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 18: Torque Wrenches
Competency 3.18.4: Identify the formula to determine the correct torque.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question

9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.4 Use appropriate tools and techniques to gather and analyze data
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 18: Torque Wrenches
Competency 3.18.5: Demonstrate how to calculate torque when using an adaptor.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise

11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics
6.1.10 multiply and divide decimals
6.1.13 Use problem solving strategies to solve and verify the results of problems
7.1.8 Solve real-world problems using integers, fractions, decimals, and percents
8.1.7 Add, subtract, multiply, and divide integers
8.1.8 Select and use a computational technique (e.g., mental calculation, paper-and-pencil, technology) to solve problems
9-10.1.9 Select and use a computational technique (i.e., mental calculation, paper-and-pencil, or technology) to solve problems involving real numbers

Science
6.2.4 Use appropriate tools and techniques to gather and analyze data
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 18: Torque Wrenches
Competency 3.18.6: Discuss the importance of following the manufacturer's recommendations when using a torque wrench.

English/Language Arts
6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience,

literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
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10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author’s bias, and author’s expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.5 Use data from scientific investigations to determine relationships and patterns
9-10.2.3 Identify questions and concepts that guide scientific investigations

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 19: Wedges
Competency 3.19.1: Explain how wedges can be used to lift and separate objects.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations

10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 19: Wedges
Competency 3.19.2: Demonstrate how to use the wedges to lift and separate a variety of objects.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview

6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
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7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
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9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the

accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 20: Utility Knives
Competency 3.20.1: Discuss the uses of a utility knife.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information

10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 20: Utility Knives
Competency 3.20.2: Demonstrate how to make a straight cut with a utility knife.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information

7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 20: Utility Knives
Competency 3.20.3: Explain that a utility knife should never be used on live wires.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
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10.1.4 Use relevant information
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10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
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12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 20: Utility Knives
Competency 3.20.4: Discuss basic safety procedures.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
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7.2.4 Use prior knowledge and experiences to aid text comprehension
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7.4.4 Construct questions in response to a speaker
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12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
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12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and

maintenance
Topic 21: Chain Falls and Come-Alongs
Competency 3.21.1: Explain how chain falls and come-alongs are used to move heavy loads.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
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11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres

11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 21: Chain Falls and Come-Alongs
Competency 3.21.2: Identify the parts of a manual chain fall.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral

presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 21: Chain Falls and Come-Alongs
Competency 3.21.3: Identify each part of a manual chain fall and explain how it is used.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose

11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 21: Chain Falls and Come-Alongs
Competency 3.21.4: Explain how to use a ratchet handle to move a load using a come-along.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information

9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance

Topic 21: Chain Falls and Come-Alongs
Competency 3.21.5: Discuss the consequences of using a come-along for vertical overhead lifting.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
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7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
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9.1.1 Choose a broad topic, state the problem, or question
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9.1.6 Summarize information
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9.4.2 Use visual aides effectively in oral presentations
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10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
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11.2.3 Analyze details, facts, and concepts from nonfiction genres

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12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 21: Chain Falls and Come-Alongs
Competency 3.21.6: Discuss the guidelines for maintaining and safely using chain falls and come-alongs.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information

7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 21: Chain Falls and Come-Alongs
Competency 3.21.7: Recognize that a qualified person must ensure that the support rigging can handle the load.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary

10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 22: Wire Brushes
Competency 3.22.1: Explain how wire brushes are used to clean tools and metal hardware.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension

7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 22: Wire Brushes
Competency 3.22.2: Demonstrate how to select the appropriate brush and practice cleaning the hand tools.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
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9.1.6 Summarize information
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9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
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10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations

11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 22: Wire Brushes
Competency 3.22.3: Explain why wire brushes should not be used for finishing work.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker

7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
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10.1.1 Form questions to focus research
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10.3.2 Defend a personal opinion using facts as support
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11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
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11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
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11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance

Topic 23: Shovels
Competency 3.23.1: Identify the basic shapes of shovel blades and how each is used

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author’s bias, and author’s expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text

11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 3: Introduction to Hand Tools-introduce basic hand tools used in construction and maintenance
Topic 23: Shovels
Competency 3.23.2: Explain how to select the appropriate shovel for a specific task.

English/Language Arts

6.1.1 Pose relevant research questions
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

9.1.1 Choose a broad topic, state the problem, or question
9.1.4 Evaluate relevancy of inform
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.2.7 Access prior knowledge to interpret meaning
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.1 Summarize information from nonfiction genres
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.2 Use appropriate body language in oral presentations
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

- No existing North Dakota Mathematics standard

Science

Construction Core Crosswalk

Standard 4: Power Tools-identify and use power tools commonly used in the construction trades.
Topic 1: Electric, Pneumatic, and Hydraulic Tools
Competency 4.1.1: Identify the three categories of power tools, and explain how each is powered.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
7.4.3 Incorporate research into presentations
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.3 Assess the relevancy and accuracy of information in media messages
7.6.1 Use grade-appropriate conventions of grammar; i.e., Capitalization: dialogue, title of

people and things; Punctuation: commas, quotation marks, apostrophes, colons/business letters and in time, underlining/italicizing; Usage: double negatives

7.6.2 Use sentence structure; i.e., simple, compound, complex

8.1.1 Use questions to narrow research topic

8.1.4 Use information from multiple sources when presenting research findings to defined audiences

8.2.2 Use prior knowledge and experiences to aid text comprehension

8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

8.3.5 Use language and format appropriate for intended audience and purpose

8.3.13 Use computer technology to present written work

8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.6.6 Locate examples of professional uses of language including jargon and formal styles

9.1.3 Cross-reference information

9.1.4 Evaluate relevancy of inform

9.1.5 Organize information from a variety of sources; e.g., chronological

9.1.6 Summarize information

9.1.7 Identify and avoid plagiarism

9.1.9 Use graphic organizer

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.3.8 Use supporting details

9.3.12 Use technology; e.g., publishing software and graphic programs, to present written work

9.4.1 Analyze the audience and adjust message and wording to suit purpose

9.4.2 Use visual aides effectively in oral presentations

9.4.3 Use notes and manuscripts to make oral presentations

10.1.1 Form questions to focus research

10.1.3 Gather reliable information to support a thesis

10.1.4 Use relevant information

10.1.5 Organize information from a variety of sources into a unified whole

10.1.7 Paraphrase information

10.1.10 Write a research paper

10.1.11 Present research information; e.g., informative speech, PowerPoint presentation, video presentation

10.2.1 Summarize information from nonfiction genres

10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model

forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
11.1.2 Evaluate and incorporate information from primary sources; e.g., interviews and surveys
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.1.5 Synthesize information in a logical sequence
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.2.2 Critique details, facts, and concepts from nonfiction genres
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.3.4 Use variety of sources for supporting details
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source

6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.2 Identify technologies (e.g., communication, agriculture, information processing, transportation) that are influenced by societies
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.3.2 Explain the relationship between phases of matter and temperature
8.3.3 Interpret the effect of balanced and unbalanced forces on the motion of an object (e.g., convection currents, orbital motion, tides)
8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.
8.8.1 Explain how many people from various cultures have made important contributions to the advancement of science and technology
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.4 Formulate a testable hypothesis for a simple investigation
9-10.2.6 Design and conduct a guided investigation
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.7 Use Newton's Laws to describe the motion of an object
deforestation, land-use practices, land-management strategies) on the environment
9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)
9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition

11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations
11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
11-12.2.5 Use technology and mathematics to improve investigations and communications
11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.10 Apply the law of conservation of energy to a variety of situations
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.6.3 Explain how designing and implementing technology requires weighing trade-offs between positive and negative impacts on humans and the environment
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 4: Power Tools-identify and use power tools commonly used in the construction trades.
Topic 1: Electric, Pneumatic, and Hydraulic Tools
Competency 4.1.2: Discuss general safety issues.

English/Language Arts
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
6.5.2 Use technology according to the district's appropriate use policy
6.6.2 Use grade-appropriate conventions of grammar; i.e., eight parts of speech and simple and perfect tense
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.3 Generate and revise predictions to aid comprehension and understanding of the meaning of texts
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
7.4.3 Incorporate research into presentations
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.3 Assess the relevancy and accuracy of information in media messages
7.6.1 Use grade-appropriate conventions of grammar; i.e., Capitalization: dialogue, title of people and things; Punctuation: commas, quotation marks, apostrophes, colons/business letters and in time, underlining/italicizing; Usage: double negatives
7.6.2 Use sentence structure; i.e., simple, compound, complex

7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.1 Use questions to narrow research topic
8.1.3 Evaluate sources that present different perspectives; e.g., by identifying sources of bias and distinguishing between primary and secondary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.3.5 Use language and format appropriate for intended audience and purpose
8.3.13 Use computer technology to present written work
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.6.6 Locate examples of professional uses of language including jargon and formal styles
9.1.1 Choose a broad topic, state the problem, or question
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.1.5 Organize information from a variety of sources; e.g., chronological
9.1.6 Summarize information
9.1.8 Use primary and secondary sources
9.1.9 Use graphic organizer
9.2.3 Differentiate between a variety of nonfiction genres; i.e., newspapers, magazines, electronic texts, biographies, reference materials, essays, and speeches
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.14 Use decoding/encoding, connotation, and denotation
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.6 Elaborate ideas through word choice and description using grade-level vocabulary
9.3.8 Use supporting details
9.3.12 Use technology; e.g., publishing software and graphic programs, to present written work
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
9.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

10.1.1 Form questions to focus research
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.5 Organize information from a variety of sources into a unified whole
10.1.7 Paraphrase information
10.1.11 Present research information; e.g., informative speech, PowerPoint presentation, video presentation
10.2.1 Summarize information from nonfiction genres
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.1.1 Research topics independently using appropriate sources
11.1.2 Evaluate and incorporate information from primary sources; e.g., interviews and surveys
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.1.5 Synthesize information in a logical sequence
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
11.5.2 Apply media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.6.4 Identify emotionally charged language
12.1.2 Plan a research strategy
12.2.2 Critique details, facts, and concepts from nonfiction genres
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.3.4 Use variety of sources for supporting details
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary

12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

Mathematics

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Science

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6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.6.1 Identify examples of how technologies have evolved
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7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
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11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations
11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
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11-12.2.5 Use technology and mathematics to improve investigations and communications
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11-12.2.7 Design and conduct an independent investigation
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11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
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11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 4: Power Tools-identify and use power tools commonly used in the construction trades.
Topic 2: Power Drills
Competency 4.2.1: Identify the different types of power drills. (i.e. electric, cordless, hammer drill, electromagnetic, pneumatic.)

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
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6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
7.4.3 Incorporate research into presentations
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.3 Assess the relevancy and accuracy of information in media messages
7.6.1 Use grade-appropriate conventions of grammar; i.e., Capitalization: dialogue, title of people and things; Punctuation: commas, quotation marks, apostrophes, colons/business

letters and in time, underlining/italicizing; Usage: double negatives
7.6.2 Use sentence structure; i.e., simple, compound, complex
8.1.1 Use questions to narrow research topic
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
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8.6.6 Locate examples of professional uses of language including jargon and formal styles
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.1.5 Organize information from a variety of sources; e.g., chronological
9.1.6 Summarize information
9.1.7 Identify and avoid plagiarism
9.1.9 Use graphic organizer
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.3.8 Use supporting details
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
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10.1.4 Use relevant information
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12.1.2 Plan a research strategy
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12.2.8 Use technical language/jargon to decipher meaning
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Mathematics

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6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
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6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
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7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.2 Identify technologies (e.g., communication, agriculture, information processing, transportation) that are influenced by societies
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8.3.3 Interpret the effect of balanced and unbalanced forces on the motion of an object (e.g., convection currents, orbital motion, tides)
8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.
8.8.1 Explain how many people from various cultures have made important contributions to the advancement of science and technology
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.4 Formulate a testable hypothesis for a simple investigation
9-10.2.6 Design and conduct a guided investigation
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.7 Use Newton's Laws to describe the motion of an object
deforestation, land-use practices, land-management strategies) on the environment
9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)
9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition
11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
11-12.2.5 Use technology and mathematics to improve investigations and communications
11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.10 Apply the law of conservation of energy to a variety of situations
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.6.3 Explain how designing and implementing technology requires weighing trade-offs between positive and negative impacts on humans and the environment
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 4: Power Tools-identify and use power tools commonly used in the construction trades.
Topic 2: Power Drills
Competency 4.2.2: Identify the safety guidelines for working with the various drills.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview

6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
7.4.3 Incorporate research into presentations
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.3 Assess the relevancy and accuracy of information in media messages
7.6.1 Use grade-appropriate conventions of grammar; i.e., Capitalization: dialogue, title of people and things; Punctuation: commas, quotation marks, apostrophes, colons/business letters and in time, underlining/italicizing; Usage: double negatives
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.1 Use questions to narrow research topic
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.3.5 Use language and format appropriate for intended audience and purpose
8.3.13 Use computer technology to present written work
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.6.6 Locate examples of professional uses of language including jargon and formal styles

9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.1.5 Organize information from a variety of sources; e.g., chronological
9.1.6 Summarize information
9.1.7 Identify and avoid plagiarism
9.1.9 Use graphic organizer
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.3.8 Use supporting details
9.3.12 Use technology; e.g., publishing software and graphic programs, to present written work
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.5 Organize information from a variety of sources into a unified whole
10.1.7 Paraphrase information
10.1.11 Present research information; e.g., informative speech, PowerPoint presentation, video presentation
10.2.1 Summarize information from nonfiction genres
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
11.1.1 Research topics independently using appropriate sources
11.1.2 Evaluate and incorporate information from primary sources; e.g., interviews and surveys
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.1.5 Synthesize information in a logical sequence
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral

interpretations, and group discussions
12.1.2 Plan a research strategy
12.2.2 Critique details, facts, and concepts from nonfiction genres
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.3.4 Use variety of sources for supporting details
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.2 Identify technologies (e.g., communication, agriculture, information processing, transportation) that are influenced by societies
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.3.2 Explain the relationship between phases of matter and temperature
8.3.3 Interpret the effect of balanced and unbalanced forces on the motion of an object (e.g.,

convection currents, orbital motion, tides)

8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.

8.8.1 Explain how many people from various cultures have made important contributions to the advancement of science and technology

9-10.1.1 Explain how models can be used to illustrate scientific principles

9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a

9-10.2.3 Identify questions and concepts that guide scientific investigations

9-10.2.4 Formulate a testable hypothesis for a simple investigation

9-10.2.6 Design and conduct a guided investigation

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.7 Use Newton's Laws to describe the motion of an object

deforestation, land-use practices, land-management strategies) on the environment

9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)

9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition

11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)

11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis

11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data

11-12.2.5 Use technology and mathematics to improve investigations and communications

11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)

11-12.2.7 Design and conduct an independent investigation

11-12.2.8 Communicate and defend a scientific argument

11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles

11-12.3.10 Apply the law of conservation of energy to a variety of situations

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11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 4: Power Tools-identify and use power tools commonly used in the construction trades.
Topic 3: Saws
Competency 4.3.1: Identify the different types of power saws. (i.e. circular, saber, reciprocating, portable band saw, jigsaw.)

English/Language Arts

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.1.4 Use information from several sources

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.4 Use graphic organizers and summarizing to enhance comprehension

6.2.5 Use prior knowledge and experiences to aid text comprehension

6.3.11 Incorporate visual aids into written work

6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview

6.4.4 Summarize key ideas of a speaker

6.4.5 Use appropriate volume and eye contact when speaking

6.5.2 Use technology according to the district's appropriate use policy

7.1.1 Generate and evaluate questions relevant to research topic

7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information

7.1.3 Question the accuracy and relevance of information

7.1.5 Present research findings, including information and evidence from a variety of sources

7.2.4 Use prior knowledge and experiences to aid text comprehension

7.2.5 Read to be informed, entertained, and persuade

7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
7.4.3 Incorporate research into presentations
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.3 Assess the relevancy and accuracy of information in media messages
7.6.1 Use grade-appropriate conventions of grammar; i.e., Capitalization: dialogue, title of people and things; Punctuation: commas, quotation marks, apostrophes, colons/business letters and in time, underlining/italicizing; Usage: double negatives
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.1 Use questions to narrow research topic
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
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8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
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9.1.6 Summarize information
9.1.7 Identify and avoid plagiarism
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9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information

10.1.5 Organize information from a variety of sources into a unified whole
10.1.7 Paraphrase information
10.1.11 Present research information; e.g., informative speech, PowerPoint presentation, video presentation
10.2.1 Summarize information from nonfiction genres
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11.1.1 Research topics independently using appropriate sources
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11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.1.5 Synthesize information in a logical sequence
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
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11.3.1 Gather information supporting multiple sides of an issue
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.2.2 Critique details, facts, and concepts from nonfiction genres
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.3.4 Use variety of sources for supporting details
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.2 Identify technologies (e.g., communication, agriculture, information processing, transportation) that are influenced by societies
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.3.2 Explain the relationship between phases of matter and temperature
8.3.3 Interpret the effect of balanced and unbalanced forces on the motion of an object (e.g., convection currents, orbital motion, tides)
8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.
8.8.1 Explain how many people from various cultures have made important contributions to the advancement of science and technology
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.4 Formulate a testable hypothesis for a simple investigation
9-10.2.6 Design and conduct a guided investigation
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.7 Use Newton's Laws to describe the motion of an object
deforestation, land-use practices, land-management strategies) on the environment
9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)

9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition

11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)

11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis

11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data

11-12.2.5 Use technology and mathematics to improve investigations and communications

11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)

11-12.2.7 Design and conduct an independent investigation

11-12.2.8 Communicate and defend a scientific argument

11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)

11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles

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11-12.6.3 Explain how designing and implementing technology requires weighing trade-offs between positive and negative impacts on humans and the environment

11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 4: Power Tools-identify and use power tools commonly used in the construction trades.
Topic 3: Saws
Competency 4.3.2: Identify the safety guidelines for working with the various saws.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
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7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.3 Assess the relevancy and accuracy of information in media messages
7.6.1 Use grade-appropriate conventions of grammar; i.e., Capitalization: dialogue, title of people and things; Punctuation: commas, quotation marks, apostrophes, colons/business letters and in time, underlining/italicizing; Usage: double negatives

7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.1 Use questions to narrow research topic
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.3.5 Use language and format appropriate for intended audience and purpose
8.3.13 Use computer technology to present written work
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.6.6 Locate examples of professional uses of language including jargon and formal styles
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.1.5 Organize information from a variety of sources; e.g., chronological
9.1.6 Summarize information
9.1.7 Identify and avoid plagiarism
9.1.9 Use graphic organizer
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
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10.1.11 Present research information; e.g., informative speech, PowerPoint presentation, video presentation
10.2.1 Summarize information from nonfiction genres
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary

10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
11.1.1 Research topics independently using appropriate sources
11.1.2 Evaluate and incorporate information from primary sources; e.g., interviews and surveys
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.1.5 Synthesize information in a logical sequence
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.2.2 Critique details, facts, and concepts from nonfiction genres
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.3.4 Use variety of sources for supporting details
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs,

materials and environmental factors)

6.6.3 Explain the relationship between science and technology

6.7.2 Explain how recycling and conservation affect populations, resources, and the environment

6.8.2 Identify scientific advances that have resulted in new ideas and further advance

7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)

7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)

7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)

7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)

7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life

7.6.2 Identify technologies (e.g., communication, agriculture, information processing, transportation) that are influenced by societies

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems

8.3.2 Explain the relationship between phases of matter and temperature

8.3.3 Interpret the effect of balanced and unbalanced forces on the motion of an object (e.g., convection currents, orbital motion, tides)

8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.

8.8.1 Explain how many people from various cultures have made important contributions to the advancement of science and technology

9-10.1.1 Explain how models can be used to illustrate scientific principles

9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a

9-10.2.3 Identify questions and concepts that guide scientific investigations

9-10.2.4 Formulate a testable hypothesis for a simple investigation

9-10.2.6 Design and conduct a guided investigation

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.7 Use Newton’s Laws to describe the motion of an object
deforestation, land-use practices, land-management strategies) on the environment

9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)

9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition

11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical

equilibrium)
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations
11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
11-12.2.5 Use technology and mathematics to improve investigations and communications
11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.10 Apply the law of conservation of energy to a variety of situations
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.6.3 Explain how designing and implementing technology requires weighing trade-offs between positive and negative impacts on humans and the environment
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 4: Power Tools-identify and use power tools commonly used in the construction trades.
Topic 4: Grinders and Sanders
Competency 4.4.1: Identify the different types of grinders and sanders.

<u>English/Language Arts</u>
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension

6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
7.4.3 Incorporate research into presentations
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.3 Assess the relevancy and accuracy of information in media messages
7.6.1 Use grade-appropriate conventions of grammar; i.e., Capitalization: dialogue, title of people and things; Punctuation: commas, quotation marks, apostrophes, colons/business letters and in time, underlining/italicizing; Usage: double negatives
7.6.2 Use sentence structure; i.e., simple, compound, complex
8.1.1 Use questions to narrow research topic
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.3.5 Use language and format appropriate for intended audience and purpose
8.3.13 Use computer technology to present written work
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and

demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.6.6 Locate examples of professional uses of language including jargon and formal styles
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.1.5 Organize information from a variety of sources; e.g., chronological
9.1.6 Summarize information
9.1.7 Identify and avoid plagiarism
9.1.9 Use graphic organizer
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.3.8 Use supporting details
9.3.12 Use technology; e.g., publishing software and graphic programs, to present written work
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.5 Organize information from a variety of sources into a unified whole
10.1.7 Paraphrase information
10.1.11 Present research information; e.g., informative speech, PowerPoint presentation, video presentation
10.2.1 Summarize information from nonfiction genres
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
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10.4.2 Use appropriate body language in oral presentations
11.1.2 Evaluate and incorporate information from primary sources; e.g., interviews and surveys
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
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11.2.3 Analyze details, facts, and concepts from nonfiction genres
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11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance

meaning
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.2.2 Critique details, facts, and concepts from nonfiction genres
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.3.4 Use variety of sources for supporting details
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.2 Identify technologies (e.g., communication, agriculture, information processing, transportation) that are influenced by societies
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.3.2 Explain the relationship between phases of matter and temperature
8.3.3 Interpret the effect of balanced and unbalanced forces on the motion of an object (e.g., convection currents, orbital motion, tides)
8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.
8.8.1 Explain how many people from various cultures have made important contributions to the advancement of science and technology
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.4 Formulate a testable hypothesis for a simple investigation
9-10.2.6 Design and conduct a guided investigation
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.7 Use Newton's Laws to describe the motion of an object
deforestation, land-use practices, land-management strategies) on the environment
9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)
9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition
11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations
11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
11-12.2.5 Use technology and mathematics to improve investigations and communications
11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.10 Apply the law of conservation of energy to a variety of situations
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes,

temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.6.3 Explain how designing and implementing technology requires weighing trade-offs between positive and negative impacts on humans and the environment
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 4: Power Tools-identify and use power tools commonly used in the construction trades.
Topic 4: Grinders and Sanders
Competency 4.4.2: Identify the safety guidelines for working with the various grinders and sanders.

English/Language Arts
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and

make sense of text

7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview

7.4.3 Incorporate research into presentations

7.4.4 Construct questions in response to a speaker

7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations

7.5.3 Assess the relevancy and accuracy of information in media messages

7.6.1 Use grade-appropriate conventions of grammar; i.e., Capitalization: dialogue, title of people and things; Punctuation: commas, quotation marks, apostrophes, colons/business letters and in time, underlining/italicizing; Usage: double negatives

7.6.2 Use sentence structure; i.e., simple, compound, complex

8.1.1 Use questions to narrow research topic

8.1.4 Use information from multiple sources when presenting research findings to defined audiences

8.2.2 Use prior knowledge and experiences to aid text comprehension

8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

8.3.5 Use language and format appropriate for intended audience and purpose

8.3.13 Use computer technology to present written work

8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.6.6 Locate examples of professional uses of language including jargon and formal styles

9.1.3 Cross-reference information

9.1.4 Evaluate relevancy of inform

9.1.5 Organize information from a variety of sources; e.g., chronological

9.1.6 Summarize information

9.1.7 Identify and avoid plagiarism

9.1.9 Use graphic organizer

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.3.8 Use supporting details

9.3.12 Use technology; e.g., publishing software and graphic programs, to present written work

9.4.1 Analyze the audience and adjust message and wording to suit purpose

9.4.2 Use visual aides effectively in oral presentations

9.4.3 Use notes and manuscripts to make oral presentations

10.1.1 Form questions to focus research

10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.5 Organize information from a variety of sources into a unified whole
10.1.7 Paraphrase information
10.1.11 Present research information; e.g., informative speech, PowerPoint presentation, video presentation
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10.4.2 Use appropriate body language in oral presentations
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11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.2.2 Critique details, facts, and concepts from nonfiction genres
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.3.4 Use variety of sources for supporting details
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

Mathematics

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Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
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6.1.3 Explain the connection between cause and effect in a system
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.2 Identify technologies (e.g., communication, agriculture, information processing, transportation) that are influenced by societies
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.3.2 Explain the relationship between phases of matter and temperature
8.3.3 Interpret the effect of balanced and unbalanced forces on the motion of an object (e.g., convection currents, orbital motion, tides)
8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.
8.8.1 Explain how many people from various cultures have made important contributions to the advancement of science and technology
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.4 Formulate a testable hypothesis for a simple investigation
9-10.2.6 Design and conduct a guided investigation
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.7 Use Newton's Laws to describe the motion of an object
deforestation, land-use practices, land-management strategies) on the environment
9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)

9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition
11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations
11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
11-12.2.5 Use technology and mathematics to improve investigations and communications
11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.10 Apply the law of conservation of energy to a variety of situations
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.6.3 Explain how designing and implementing technology requires weighing trade-offs between positive and negative impacts on humans and the environment
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 4: Power Tools-identify and use power tools commonly used in the construction trades.
Topic 5: Miscellaneous Power Tools
Competency 4.5.1: Identify miscellaneous power tools (i.e. pneumatically powered nailer, pavement breaker, and hydraulic jack)

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
7.4.3 Incorporate research into presentations
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.3 Assess the relevancy and accuracy of information in media messages
7.6.1 Use grade-appropriate conventions of grammar; i.e., Capitalization: dialogue, title of people and things; Punctuation: commas, quotation marks, apostrophes, colons/business letters and in time, underlining/italicizing; Usage: double negatives
7.6.2 Use sentence structure; i.e., simple, compound, complex
8.1.1 Use questions to narrow research topic
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms,

prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

8.3.5 Use language and format appropriate for intended audience and purpose
8.3.13 Use computer technology to present written work
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.6.6 Locate examples of professional uses of language including jargon and formal styles
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.1.5 Organize information from a variety of sources; e.g., chronological
9.1.6 Summarize information
9.1.7 Identify and avoid plagiarism
9.1.9 Use graphic organizer
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.3.8 Use supporting details
9.3.12 Use technology; e.g., publishing software and graphic programs, to present written work
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.5 Organize information from a variety of sources into a unified whole
10.1.7 Paraphrase information
10.1.11 Present research information; e.g., informative speech, PowerPoint presentation, video presentation
10.2.1 Summarize information from nonfiction genres
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
11.1.2 Evaluate and incorporate information from primary sources; e.g., interviews and surveys
11.1.3 Evaluate reliability, validity, comprehensiveness, author’s bias, and author’s expertise
11.1.4 Verify the quality, accuracy, and usefulness of information

11.1.5 Synthesize information in a logical sequence
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.2.2 Critique details, facts, and concepts from nonfiction genres
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.3.4 Use variety of sources for supporting details
12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a

system (e.g., body systems, ecosystems)

7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)

7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)

7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life

7.6.2 Identify technologies (e.g., communication, agriculture, information processing, transportation) that are influenced by societies

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems

8.3.2 Explain the relationship between phases of matter and temperature

8.3.3 Interpret the effect of balanced and unbalanced forces on the motion of an object (e.g., convection currents, orbital motion, tides)

8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.

8.8.1 Explain how many people from various cultures have made important contributions to the advancement of science and technology

9-10.1.1 Explain how models can be used to illustrate scientific principles

9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a

9-10.2.3 Identify questions and concepts that guide scientific investigations

9-10.2.4 Formulate a testable hypothesis for a simple investigation

9-10.2.6 Design and conduct a guided investigation

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.7 Use Newton's Laws to describe the motion of an object
deforestation, land-use practices, land-management strategies) on the environment

9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)

9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition

11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)

11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations

11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis

11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data

11-12.2.5 Use technology and mathematics to improve investigations and communications

11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.10 Apply the law of conservation of energy to a variety of situations
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.6.3 Explain how designing and implementing technology requires weighing trade-offs between positive and negative impacts on humans and the environment
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 4: Power Tools-identify and use power tools commonly used in the construction trades.
Topic 5: Miscellaneous Power Tools
Competency 4.5.2: Identify the safety guidelines for working with misc. power tools.

<u>English/Language Arts</u>
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.4 Summarize key ideas of a speaker
6.4.5 Use appropriate volume and eye contact when speaking
6.5.2 Use technology according to the district's appropriate use policy
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to

access information
7.1.3 Question the accuracy and relevance of information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
7.4.3 Incorporate research into presentations
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
7.5.3 Assess the relevancy and accuracy of information in media messages
7.6.1 Use grade-appropriate conventions of grammar; i.e., Capitalization: dialogue, title of people and things; Punctuation: commas, quotation marks, apostrophes, colons/business letters and in time, underlining/italicizing; Usage: double negatives
7.6.2 Use sentence structure; i.e., simple, compound, complex
8.1.1 Use questions to narrow research topic
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.3.5 Use language and format appropriate for intended audience and purpose
8.3.13 Use computer technology to present written work
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.6.6 Locate examples of professional uses of language including jargon and formal styles
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.1.5 Organize information from a variety of sources; e.g., chronological
9.1.6 Summarize information
9.1.7 Identify and avoid plagiarism
9.1.9 Use graphic organizer

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.3.8 Use supporting details
9.3.12 Use technology; e.g., publishing software and graphic programs, to present written work
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.2 Use visual aides effectively in oral presentations
9.4.3 Use notes and manuscripts to make oral presentations
10.1.1 Form questions to focus research
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.5 Organize information from a variety of sources into a unified whole
10.1.7 Paraphrase information
10.1.11 Present research information; e.g., informative speech, PowerPoint presentation, video presentation
10.2.1 Summarize information from nonfiction genres
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.7 Use a variety of supporting details
10.3.9 Use precise language to describe people, places, and things
10.4.1 Analyze the audience and adjust message and wording to suit the purpose
10.4.2 Use appropriate body language in oral presentations
11.1.2 Evaluate and incorporate information from primary sources; e.g., interviews and surveys
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.1.5 Synthesize information in a logical sequence
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.3 Elaborate ideas through word choice and description using grade-level vocabulary
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
11.4.1 Analyze the audience and adjust message and wording to suit the purpose
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.2.2 Critique details, facts, and concepts from nonfiction genres
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.3.4 Use variety of sources for supporting details

12.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

Mathematics

- No existing North Dakota Mathematics standard

Science

6.1.1 Construct a model to represent concepts, features, or phenomena in the real world (e.g., solar system, earth's interior)
6.1.2 Identify systems that are composed of subsystems (e.g., solar system, cell, ecosystems.)
6.1.3 Explain the connection between cause and effect in a system
6.3.1 Organize materials according to similar properties (e.g., physical, chemical)
6.3.3 Identify different forms of energy (e.g., chemical, mechanical, heat, sound)
6.3.5 Explain how vibrations create wavelike disturbances that spread out from the source
6.6.1 Identify examples of how technologies have evolved
6.6.2 Design a product or solution to a problem given constraints (e.g., limits of time, costs, materials and environmental factors)
6.6.3 Explain the relationship between science and technology
6.7.2 Explain how recycling and conservation affect populations, resources, and the environment
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.1.1 Explain how models can be used to illustrate scientific principles (e.g., osmosis, cell division)
7.1.2 Identify the components (e.g., tissues, organs, living and nonliving things) within a system (e.g., body systems, ecosystems)
7.1.3 Identify examples of feedback mechanisms (e.g., hunger, perspiring)
7.3.1 Explain how forms of energy can be transferred. (e.g., photosynthesis, metabolism, battery)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.2 Identify technologies (e.g., communication, agriculture, information processing, transportation) that are influenced by societies
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
8.1.1 Organize changes (e.g., patterns, cycles) that occur sequentially in systems
8.3.2 Explain the relationship between phases of matter and temperature
8.3.3 Interpret the effect of balanced and unbalanced forces on the motion of an object (e.g., convection currents, orbital motion, tides)
8.3.5 Identify when heat can be transferred by conduction, convection, or radiation.
8.8.1 Explain how many people from various cultures have made important contributions to the advancement of science and technology
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.1.2 Describe the interaction of components within a system (e.g., interactions between living and nonliving components of an ecosystem, interaction between organelles of a

9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.4 Formulate a testable hypothesis for a simple investigation
9-10.2.6 Design and conduct a guided investigation
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.7 Use Newton's Laws to describe the motion of an object
deforestation, land-use practices, land-management strategies) on the environment
9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)
9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition
11-12.1.2 Identify the structure, organization, and dynamics of components within a system (e.g., cells, tissues, organs, organ systems, reactants and products in chemical equilibrium)
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)
11-12.2.2 Select and use appropriate instruments, measuring tools, and units of measure to improve scientific investigations
11-12.2.3 Use data from scientific investigations to accept or reject a hypothesis
11-12.2.4 Formulate and revise explanations based upon scientific knowledge and experimental data
11-12.2.5 Use technology and mathematics to improve investigations and communications
11-12.2.6 Analyze data using appropriate strategies (e.g., interpolation, and extrapolation of data, significant figures, dimensional analysis)
11-12.2.7 Design and conduct an independent investigation
11-12.2.8 Communicate and defend a scientific argument
11-12.3.8 Identify the principles and relationships influencing forces and motion (e.g., gravitational force, vectors, velocity, friction)
11-12.3.9 Explain the relationship among thermal energy, temperature, and the motion of particles
11-12.3.10 Apply the law of conservation of energy to a variety of situations
11-12.3.11 Explain how energy is related to physical changes of matter (e.g., phase changes, temperature changes)
11-12.3.13 Explain how magnetic forces relate to electric forces
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)
11-12.6.3 Explain how designing and implementing technology requires weighing trade-offs between positive and negative impacts on humans and the environment
11-12.7.4 Explain how science and technology can influence personal, industrial, and cultural decision-making (e.g., organ transplants, cloning, stem cell research, genetic manipulation, use of genetic profile, archeological discoveries, land management, resource management)

Standard 5: Introduction to Blueprints
Topic 1: Introduction basic blueprint terms, components, and symbols
Competency 5.1.1: Compare early blueprint designs with a blueprint created by computer-aided drafting (CAD).

English/Language Arts

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.3 Produce persuasive writing; e.g., opinion, essay, business letter
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.5 Use appropriate volume and eye contact when speaking
6.5.2 Use technology according to the district's appropriate use policy
7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.13 Use computer technology to present written work
8.5.2 Access media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
8.6.6 Locate examples of professional uses of language including jargon and formal styles
9.1.1 Choose a broad topic, state the problem, or question
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.1.9 Use graphic organizer
9.2.3 Differentiate between a variety of nonfiction genres; i.e., newspapers, magazines, electronic texts, biographies, reference materials, essays, and speeches
9.2.7 Access prior knowledge to interpret meaning
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.2 Use visual aides effectively in oral presentations
9.4.5 Use critical listening skills; i.e., reflection

10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.5 Organize information from a variety of sources into a unified whole
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.10 Use a specific point of view in compositions
11.1.1 Research topics independently using appropriate sources
11.1.4 Verify the quality, accuracy, and usefulness of information
11.1.5 Synthesize information in a logical sequence
11.2.3 Analyze details, facts, and concepts from nonfiction genres
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
12.1.2 Plan a research strategy
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.3.1 Write business or other formal documents, including resumes, scholarship letters, and letters of inquiry or complaint
12.3.4 Use variety of sources for supporting details
12.4.4 Use critical listening responses, such as refutation and commentary, to critique the accuracy of messages

Mathematics

Science

Standard 5: Introduction to Blueprints
Topic 1: Introduction basic blueprint terms, components, and symbols
Competency 5.1.2: Discuss the advantages of CAD-generated drawings over hand-drawn blueprints.

English/Language Arts
6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support

11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
12.1.2 Plan a research strategy

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 1: Introduction basic blueprint terms, components, and symbols
Competency 5.1.3: Explain that blueprints and specifications dictate what is to be built and what materials are to be used.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.4 Organize research information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined

audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
8.6.6 Locate examples of professional uses of language including jargon and formal styles
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 1: Introduction basic blueprint terms, components, and symbols
Competency 5.1.4: Discuss the importance of being able to read blue-prints.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 1: Introduction basic blueprint terms, components, and symbols
Competency 5.1.5: Explain how contour lines on a civil plan show the contours of the earth.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
8.6.4 Identify social differences in language; e.g., the use of slang, cliché, and formal and informal styles
8.6.6 Locate examples of professional uses of language including jargon and formal styles
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper

10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
12.1.2 Plan a research strategy

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 1: Introduction basic blueprint terms, components, and symbols
Competency 5.1.6: Identify construction features illustrated on the drawing.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuaded

7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of information
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
12.1.2 Determine purpose; e.g., inform, persuade

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 1: Introduction basic blueprint terms, components, and symbols
Competency 5.1.7: List the different types of information that are included in floor and roof plans.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuaded
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of

ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of information
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 1: Introduction basic blueprint terms, components, and symbols
Competency 5.1.8: Explain how elevation drawings are used to illustrate side views and building interiors.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning

of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuaded
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
8.6.4 Identify social differences in language; e.g., the use of slang, cliché, and formal and informal styles
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of information
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details

9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 1: Introduction basic blueprint terms, components, and symbols
Competency 5.1.9: Discuss the types of details that are included in section and detail drawings

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information

7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuaded
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
8.6.6 Locate examples of professional uses of language including jargon and formal styles
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of information
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text

11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance Meaning
12.1.2 Determine purpose; e.g., inform, persuade

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 1: Introduction basic blueprint terms, components, and symbols
Competency 5.1.10: Explain how to locate section and detail drawings in the blueprint plan.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuaded
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources

8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of information
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance Meaning
12.1.2 Determine purpose; e.g., inform, persuade

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 1: Introduction basic blueprint terms, components, and symbols
Competency 5.1.11: Demonstrate how to interpret the information on door, window, and hardware schedules.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuaded
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question

9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of information
9.2.7 Access prior knowledge to interpret meaning
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance Meaning

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 1: Introduction basic blueprint terms, components, and symbols
Competency 5.1.12: Explain how to translate the information in the general notes on a structural plan.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions

6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuaded
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
8.6.6 Locate examples of professional uses of language including jargon and formal styles
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of information
9.2.7 Access prior knowledge to interpret meaning
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 1: Introduction basic blueprint terms, components, and symbols
Competency 5.1.13: Discuss the types of information that are included on foundation and structural plans.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2. Use graphic organizers, summarizing, paraphrasing, and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuaded
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative,

persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of information
9.2.7 Access prior knowledge to interpret meaning
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
12.1.2 Determine purpose e.g., inform, persuade

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 1: Introduction basic blueprint terms, components, and symbols
Competency 5.1.14: Explain how structural section drawings illustrate connections and attachments of accessories.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2. Use graphic organizers, summarizing, paraphrasing, and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuaded
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of

ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of information
9.2.7 Access prior knowledge to interpret meaning
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
12.1.2 Determine purpose e.g., inform, persuade

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 1: Introduction basic blueprint terms, components, and symbols
Competency 5.1.15: Identify the general notes that are typically included on a mechanical plan.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.5 Read to be informed, entertained, and persuaded
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of information
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection

10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 1: Introduction basic blueprint terms, components, and symbols
Competency 5.1.16: Explain how general notes on a mechanical plan are used to determine the location of grilles and registers.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information

7.2.5 Read to be informed, entertained, and persuaded
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of information
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents e.g., to become life-long readers, to model forms of writing
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning

12.1.2 Determine purpose e.g., inform, persuade

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 1: Introduction basic blueprint terms, components, and symbols
Competency 5.1.17: Identify symbols and abbreviations on a mechanical plan

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.5 Read to be informed, entertained, and persuaded
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency

8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of information
9.2.8 Read for a variety of purposes and intents e.g., to become life-long readers, to model forms of writing
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 1: Introduction basic blueprint terms, components, and symbols

Competency 5.1.18: Discuss the importance of being able to accurately interpret symbols and abbreviations.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.5 Read to be informed, entertained, and persuaded
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of information
9.2.8 Read for a variety of purposes and intents e.g., to become life-long readers, to model forms of writing

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 1: Introduction basic blueprint terms, components, and symbols
Competency 5.1.19: Explain why piping and instrument drawings are not drawn to scale.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic

7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 1: Introduction basic blueprint terms, components, and symbols
Competency 5.1.20: Discuss the need for separate heating, ventilating, and air conditioning plans.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences

8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 1: Introduction basic blueprint terms, components, and symbols

Competency 5.1.21: Identify the layouts that are illustrated on plumbing/piping plans.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform

9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
12.1.2 Plan a research strategy

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 1: Introduction basic blueprint terms, components, and symbols
Competency 5.1.22: Explain how isometric drawings are used to depict plumbing systems.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to

inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model

forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
12.1.2 Plan a research strategy

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 1: Introduction basic blueprint terms, components, and symbols
Competency 5.1.23: Discuss the advantage of using a separate electrical plan rather than including the information on the floor plan.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade

7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
12.1.2 Plan a research strategy

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 1: Introduction basic blueprint terms, components, and symbols
Competency 5.1.24: Specify the information included in an electrical plan's general notes

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing

8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 1: Introduction basic blueprint terms, components, and symbols
Competency 5.1.25: Identify symbols and abbreviations used on an electrical plan.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning

of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection

10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 1: Introduction basic blueprint terms, components, and symbols
Competency 5.1.26: Compare the electrical legend and abbreviations with the mechanical legend and abbreviations

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information

7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance

meaning

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 1: Introduction basic blueprint terms, components, and symbols
Competency 5.1.27: Locate information on a set of specifications.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing

8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
12.1.2 Plan a research strategy

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 1: Introduction basic blueprint terms, components, and symbols
Competency 5.1.28: Discuss the information that is included in a request for information.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
12.1.2 Plan a research strategy

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 1: Introduction basic blueprint terms, components, and symbols
Competency 5.1.29: Provide examples of discrepancies that should be reported to the foreman

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker

7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text

11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 2: Components of the Blueprint
Competency 5.2.1: Label the five parts of a blueprint.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined

audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
12.1.2 Plan a research strategy

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 2: Components of the Blueprint
Competency 5.2.2: Discuss the information included in a title block.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement

9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
12.1.2 Plan a research strategy

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 2: Components of the Blueprint
Competency 5.2.3: Explain the two main purposes of a title block.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.3.1 Write expository texts; e.g., essays, directions, and letters

9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
12.1.2 Plan a research strategy

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 2: Components of the Blueprint
Competency 5.2.4: Locate a title block on a sample blueprint.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to

access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
8.6.6 Locate examples of professional uses of language including jargon and formal styles
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support

11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
12.1.2 Plan a research strategy

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 2: Components of the Blueprint
Competency 5.2.5: Distinguish between a blueprint's border and its drawing area.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive

7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
8.6.6 Locate examples of professional uses of language including jargon and formal styles
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
12.1.2 Plan a research strategy

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 2: Components of the Blueprint
Competency 5.2.6: Explain why a border is necessary.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in

letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers

9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 2: Components of the Blueprint

Competency 5.2.7: Explain where and how revisions should be included on a blue print.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
8.6.4 Identify social differences in language; e.g., the use of slang, cliché, and formal and informal styles
8.6.6 Locate examples of professional uses of language including jargon and formal styles

9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
12.1.2 Plan a research strategy

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 2: Components of the Blueprint
Competency 5.2.8: Discuss the importance of using the latest version of blueprint.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension

6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper

10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 2: Components of the Blueprint
Competency 5.2.9: Demonstrate how to interpret the legend on a blueprint and how to use it to locate information about the plan's design.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive

7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
8.6.6 Locate examples of professional uses of language including jargon and formal styles
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 3: Scale
Competency 5.3.1: Discuss the factors that affect the type of scale used on a drawing.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency

8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
12.1.2 Plan a research strategy

Mathematics

6.1.1 Use a fraction to represent parts of a whole, division, or a ratio
6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
6.1.4 Compare and order fractions, decimals, mixed numbers and integers
6.1.13 Use problem solving strategies to solve and verify the results of problems
6.1.14 Estimate the results of problems involving whole numbers, fractions, and decimals
6.4.1 Measure length to the nearest sixteenth of an inch
6.4.2 Select an appropriate unit of measure; e.g., What unit do you use to measure a person's height?
6.4.3 Convert unit measurements within the same system (metric and standard)
6.4.5 Select appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
7.1.1 Use ratios and proportions to represent relationships
7.1.4 Use integers to represent and compare quantities
7.1.7 Add, subtract, multiply, and divide fractions and terminating decimals

7.1.8 Solve real-world problems using integers, fractions, decimals, and percents
7.1.9 Estimate the results of problems involving fractions, decimals, and percents
7.1.10 Use proportions to solve problems
7.3.6 Describe how scale can make graphs, tables, and charts appear misleading
7.4.1 Estimate a measurement to the degree of precision that the tool provides
7.4.2 Convert unit measurements within the same system (metric and standard) when solving problems
7.4.4 Select and use appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
7.4.5 Solve problems involving scale factors, using ratio and proportion
8.1.2 Solve real-world problems involving ration, proportion, and percent
8.1.8 Select and use a computational technique (e.g., mental calculation, paper-and-pencil, technology) to solve problems
8.4.2 Compare unit measurements between systems, e.g., a yard is almost a meter
9-10.1.8 Apply estimation skills to predict realistic solutions to problems
9-10.1.9 Select and use a computational technique (i.e., mental calculation, paper-and-pencil, or technology) to solve problems involving real numbers
9-10.4.1 Select appropriate units and scales for problem situations involving measurement
9-10.4.5 Use methods necessary to achieve a specified degree of precision and accuracy (i.e., appropriate number of significant digits) in measurement situations
9-10.4.6 Employ estimation techniques to evaluate reasonableness of results in measurement situations
9-10.4.10 Apply indirect measurement techniques to solve problems involving irregular shapes or inaccessible objects; e.g., calculate the distance across a lake, triangulate an irregular region to find its approximate area

Science

Standard 5: Introduction to Blueprints
Topic 3: Scale
Competency 5.3.2: Explain why approximate sizes are not enough for construction.

English/Language Arts
6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker

7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources

11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
12.1.2 Plan a research strategy

Mathematics

6.1.13 Use problem solving strategies to solve and verify the results of problems
6.4.1 Measure length to the nearest sixteenth of an inch
6.4.2 Select an appropriate unit of measure; e.g., What unit do you use to measure a person's height?
7.1.4 Use integers to represent and compare quantities
7.1.8 Solve real-world problems using integers, fractions, decimals, and percents
7.1.9 Estimate the results of problems involving fractions, decimals, and percents
7.4.1 Estimate a measurement to the degree of precision that the tool provides
8.1.2 Solve real-world problems involving ration, proportion, and percent
8.1.8 Select and use a computational technique (e.g., mental calculation, paper-and-pencil, technology) to solve problems
8.1.9 Determine when an estimate is sufficient and an exact answer is needed in problem situations
9-10.1.8 Apply estimation skills to predict realistic solutions to problems
9-10.1.9 Select and use a computational technique (i.e., mental calculation, paper-and-pencil, or technology) to solve problems involving real numbers
9-10.1.10 Explain the reasonableness of a problem's solution and the process used to obtain it
9-10.4.1 Select appropriate units and scales for problem situations involving measurement
9-10.4.5 Use methods necessary to achieve a specified degree of precision and accuracy (i.e., appropriate number of significant digits) in measurement situations

Science

Standard 5: Introduction to Blueprints
Topic 3: Scale
Competency 5.3.3: Discuss the consequences of failing to use a drawing's written dimensions.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension

6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information

10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
12.1.2 Plan a research strategy

Mathematics

6.1.13 Use problem solving strategies to solve and verify the results of problems
6.4.1 Measure length to the nearest sixteenth of an inch
6.4.2 Select an appropriate unit of measure; e.g., What unit do you use to measure a person's height?
7.1.4 Use integers to represent and compare quantities
7.1.8 Solve real-world problems using integers, fractions, decimals, and percents
7.1.9 Estimate the results of problems involving fractions, decimals, and percents
7.4.1 Estimate a measurement to the degree of precision that the tool provides
8.1.2 Solve real-world problems involving ration, proportion, and percent
8.1.8 Select and use a computational technique (e.g., mental calculation, paper-and-pencil, technology) to solve problems
8.1.9 Determine when an estimate is sufficient and an exact answer is needed in problem situations
9-10.1.8 Apply estimation skills to predict realistic solutions to problems
9-10.1.9 Select and use a computational technique (i.e., mental calculation, paper-and-pencil, or technology) to solve problems involving real numbers
9-10.1.10 Explain the reasonableness of a problem's solution and the process used to obtain it
9-10.4.1 Select appropriate units and scales for problem situations involving measurement
9-10.4.5 Use methods necessary to achieve a specified degree of precision and accuracy (i.e., appropriate number of significant digits) in measurement situations

Science

Standard 5: Introduction to Blueprints
Topic 3: Scale
Competency 5.3.4: Explain when and how to use an engineer's scale.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.3.1 Write expository texts; e.g., essays, directions, and letters

9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
12.1.2 Plan a research strategy

Mathematics

6.1.1 Use a fraction to represent parts of a whole, division, or a ratio
6.1.3 Find the equivalent forms among fractions, decimals, and whole number percents
6.1.4 Compare and order fractions, decimals, mixed numbers and integers
6.1.13 Use problem solving strategies to solve and verify the results of problems
6.1.14 Estimate the results of problems involving whole numbers, fractions, and decimals
6.4.1 Measure length to the nearest sixteenth of an inch
6.4.2 Select an appropriate unit of measure; e.g., What unit do you use to measure a person's height?
6.4.3 Convert unit measurements within the same system (metric and standard)
6.4.5 Select appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
7.1.1 Use ratios and proportions to represent relationships
7.1.4 Use integers to represent and compare quantities
7.1.7 Add, subtract, multiply, and divide fractions and terminating decimals
7.1.8 Solve real-world problems using integers, fractions, decimals, and percents
7.1.9 Estimate the results of problems involving fractions, decimals, and percents
7.1.10 Use proportions to solve problems
7.3.6 Describe how scale can make graphs, tables, and charts appear misleading
7.4.1 Estimate a measurement to the degree of precision that the tool provides
7.4.2 Convert unit measurements within the same system (metric and standard) when solving problems
7.4.4 Select and use appropriate tools and units to determine the measurements needed for calculating perimeter, circumference, area, surface area, and volume
7.4.5 Solve problems involving scale factors, using ratio and proportion
8.1.2 Solve real-world problems involving ration, proportion, and percent

8.1.8 Select and use a computational technique (e.g., mental calculation, paper-and-pencil, technology) to solve problems
8.4.2 Compare unit measurements between systems, e.g., a yard is almost a meter
9-10.1.8 Apply estimation skills to predict realistic solutions to problems
9-10.1.9 Select and use a computational technique (i.e., mental calculation, paper-and-pencil, or technology) to solve problems involving real numbers
9-10.4.1 Select appropriate units and scales for problem situations involving measurement
9-10.4.5 Use methods necessary to achieve a specified degree of precision and accuracy (i.e., appropriate number of significant digits) in measurement situations
9-10.4.6 Employ estimation techniques to evaluate reasonableness of results in measurement situations
9-10.4.10 Apply indirect measurement techniques to solve problems involving irregular shapes or inaccessible objects; e.g., calculate the distance across a lake, triangulate an irregular region to find its approximate area

Science

Standard 5: Introduction to Blueprints
Topic 3: Scale
Competency 5.3.5: Demonstrate how to read an architect's scale from left to right or from right to left.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive

7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
8.6.4 Identify social differences in language; e.g., the use of slang, cliché, and formal and informal styles
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
12.1.2 Plan a research strategy

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 3: Scale
Competency 5.3.6: Compare the metric scale with the architect's and engineer's scales.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of

ideas, organization, word choice, and fluency

8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers

9.1.1 Choose a broad topic, state the problem, or question

9.1.2 Formulate a preliminary thesis statement

9.1.3 Cross-reference information

9.1.4 Evaluate relevancy of inform

9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.3.1 Write expository texts; e.g., essays, directions, and letters

9.3.8 Use supporting details

9.4.4 Engage in a group discussion

9.4.5 Use critical listening skills; i.e., reflection

10.1.3 Gather reliable information to support a thesis

10.1.4 Use relevant information

10.1.7 Paraphrase information

10.1.10 Write a research paper

10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

10.3.2 Defend a personal opinion using facts as support

11.1.1 Research topics independently using appropriate sources

11.1.5 Synthesize information in a logical sequence

11.2.6 Apply prior knowledge of content to interpret meaning of text

11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

11.3.1 Gather information supporting multiple sides of an issue

11.3.5 Use a variety of supporting details

11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning

12.1.2 Plan a research strategy

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 3: Scale
Competency 5.3.7: Demonstrate how to draw and measure lines on blueprints on an engineer's and architect's scale.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.3.1 Write expository texts; e.g., essays, directions, and letters

9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
12.1.2 Plan a research strategy

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 4: Lines of Construction
Competency 5.4.1: Identify the lines commonly used on blueprints.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information

7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue

11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 4: Lines of Construction
Competency 5.4.2: Identify and label each of the lines of construction used on drawings in sample blueprints.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for

personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 5: Abbreviations, Symbols, and Keynotes
Competency 5.5.1: Define the abbreviations commonly used on blueprints.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers

9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters

9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 5: Abbreviations, Symbols, and Keynotes
Competency 5.5.2: Recognize that abbreviations should always be written in capital letters.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information

7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue

11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 5: Abbreviations, Symbols, and Keynotes
Competency 5.5.3: Demonstrate writing common abbreviations for a hypothetical set of plans.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing

8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
8.6.6 Locate examples of professional uses of language including jargon and formal styles
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 5: Abbreviations, Symbols, and Keynotes
Competency 5.5.4: Demonstrate writing a list of abbreviations as they might appear on a title sheet.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters

9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 5: Abbreviations, Symbols, and Keynotes
Competency 5.5.5: Explain that there are unique sets of symbols for architectural, civil, and structural, mechanical, plumbing, and electrical plans.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to

access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text

11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
12.1.2 Plan a research strategy

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 5: Abbreviations, Symbols, and Keynotes
Competency 5.5.6: Compare keynotes with symbols.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources

8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
12.1.2 Plan a research strategy

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 5: Abbreviations, Symbols, and Keynotes
Competency 5.5.7: Discuss the advantages and disadvantages of using keynotes.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement

9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
12.1.2 Plan a research strategy

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 6: Using Gridlines to Identify Plan Locations
Competency 5.6.1: Explain how to use a gridline to identify plan locations.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions

6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper

10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
12.1.2 Plan a research strategy

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 6: Using Gridlines to Identify Plan Locations
Competency 5.6.2: Locate items on a blueprint that uses a gridline system in bays.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade

7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
12.1.2 Plan a research strategy

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 7: Dimensions
Competency 5.7.1: Compare the exterior and interior dimensions on a pipe.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of

ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
12.1.2 Plan a research strategy

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 7: Dimensions
Competency 5.7.2: Discuss the importance of understanding how to read dimensions on construction drawings.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning

of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection

10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning

Mathematics

- No existing North Dakota Mathematics standard

Science

Standard 5: Introduction to Blueprints
Topic 7: Dimensions
Competency 5.7.3: Identify measurements on a blueprint and specify if they are internal or external measurements.

English/Language Arts

6.1.3 Differentiate between accurate and inaccurate information
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.11 Incorporate visual aids into written work
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.4 Summarize key ideas of a speaker
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information

7.2.2 Use graphic organizers; summarizing; paraphrasing; and vocabulary building strategies, including context clues, to enhance understanding and aid comprehension of the meaning of texts
7.2.5 Read to be informed, entertained, and persuade
7.3.4 Use strategies to write for different audiences and purposes; e.g., informative, narrative, persuasive
7.6.2 Use sentence structure; i.e., simple, compound, complex
7.6.3 Use grade-appropriate mechanics and usage; i.e., capitalization
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.4 Read for a variety of purposes to develop lifetime reading skills and habits, e.g., for personal recreation, to model forms of writing
8.3.7 Incorporate grade-level appropriate vocabulary in writing
8.3.10 Use feedback and multiple drafts to revise text for specific purposes, e.g., clarity of ideas, organization, word choice, and fluency
8.6.3 Use grade-appropriate mechanics and usage; i.e., Capitalization: publications and in letters; Punctuation: commas, semi colons, colons, quotation marks, underlining, hyphens, apostrophes; Usage: misplaced modifiers
9.1.1 Choose a broad topic, state the problem, or question
9.1.2 Formulate a preliminary thesis statement
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.8 Use supporting details
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.7 Paraphrase information
10.1.10 Write a research paper
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
11.1.1 Research topics independently using appropriate sources
11.1.5 Synthesize information in a logical sequence
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue

11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
12.1.2 Plan a research strategy

Mathematics

- No existing North Dakota Mathematics standard

Science

- No existing North Dakota Science standard

Standard 6: Basic Communication Skills
Topic 1: Foundations of Communication
Competency 6.1.1: Demonstrate the ability to interpret information and instructions presented in written and verbal form

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.3 Incorporate literature in presentations, such as book reports
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.3.9 Edit for grammar, mechanics, usage, and spelling
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
7.4.3 Incorporate research into presentations
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined

audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.6.6 Locate examples of professional uses of language including jargon and formal styles
9.1.4 Evaluate relevancy of inform
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.6 Elaborate ideas through word choice and description using grade-level vocabulary
9.3.8 Use supporting details
9.3.12 Use technology; e.g., publishing software and graphic programs, to present written work
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.1 Form questions to focus research
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.5 Organize information from a variety of sources into a unified whole
10.1.11 Present research information; e.g., informative speech, PowerPoint presentation, video presentation
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.9 Use precise language to describe people, places, and things
10.4.3 Formulate questions in response to a verbal message
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.1.1 Research topics independently using appropriate sources
11.1.2 Evaluate and incorporate information from primary sources; e.g., interviews and surveys
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.1.5 Synthesize information in a logical sequence
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.1 Gather information supporting multiple sides of an issue
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance

meaning

11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

12.1.2 Plan a research strategy

12.1.3 Develop a research question

12.2.2 Critique details, facts, and concepts from nonfiction genres

12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

12.2.8 Use technical language/jargon to decipher meaning

12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations

12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)

6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.

6.2.4 Use appropriate tools and techniques to gather and analyze data

6.2.5 Use data from scientific investigations to determine relationships and patterns

6.5.1 Identify adverse weather conditions and how humans prepare for them

6.6.1 Identify examples of how technologies have evolved

7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)

7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

8.2.2 Use evidence to generate descriptions, explanations, predictions, and models

8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data

8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)

9-10.1.1 Explain how models can be used to illustrate scientific principles

9-10.2.3 Identify questions and concepts that guide scientific investigations

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)

9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment

11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

Standard 6: Basic Communication Skills
Topic 1: Foundations of Communication
Competency 6.1.2: Demonstrate the ability to communicate effectively in on the job situations using written and verbal skills.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.3 Incorporate literature in presentations, such as book reports
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.3.9 Edit for grammar, mechanics, usage, and spelling
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
7.4.3 Incorporate research into presentations
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources

8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.6.6 Locate examples of professional uses of language including jargon and formal styles
9.1.4 Evaluate relevancy of inform
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.6 Elaborate ideas through word choice and description using grade-level vocabulary
9.3.8 Use supporting details
9.3.12 Use technology; e.g., publishing software and graphic programs, to present written work
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.1 Form questions to focus research
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.5 Organize information from a variety of sources into a unified whole
10.1.11 Present research information; e.g., informative speech, PowerPoint presentation, video presentation
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.9 Use precise language to describe people, places, and things
10.4.3 Formulate questions in response to a verbal message
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.1.1 Research topics independently using appropriate sources
11.1.2 Evaluate and incorporate information from primary sources; e.g., interviews and surveys
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.1.5 Synthesize information in a logical sequence
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.1 Gather information supporting multiple sides of an issue

11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.1.3 Develop a research question
12.2.2 Critique details, facts, and concepts from nonfiction genres
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

Standard 6: Basic Communication Skills
Topic 2: Reading and Writing Skills
Competency 6.2.1: Discuss the importance of reading on the job.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.3 Incorporate literature in presentations, such as book reports
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.3.9 Edit for grammar, mechanics, usage, and spelling
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
7.4.3 Incorporate research into presentations
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension

8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.6.6 Locate examples of professional uses of language including jargon and formal styles
9.1.4 Evaluate relevancy of inform
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.6 Elaborate ideas through word choice and description using grade-level vocabulary
9.3.8 Use supporting details
9.3.12 Use technology; e.g., publishing software and graphic programs, to present written work
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.1 Form questions to focus research
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.5 Organize information from a variety of sources into a unified whole
10.1.11 Present research information; e.g., informative speech, PowerPoint presentation, video presentation
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.9 Use precise language to describe people, places, and things
10.4.3 Formulate questions in response to a verbal message
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.1.1 Research topics independently using appropriate sources
11.1.2 Evaluate and incorporate information from primary sources; e.g., interviews and surveys
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.1.5 Synthesize information in a logical sequence
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.1 Gather information supporting multiple sides of an issue
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral

interpretations, and group discussions
12.1.2 Plan a research strategy
12.1.3 Develop a research question
12.2.2 Critique details, facts, and concepts from nonfiction genres
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

Standard 6: Basic Communication Skills
Topic 2: Reading and Writing Skills
Competency 6.2.2: List the Five C's of good writing (complete, clear, concise, correct, and consider the reader).

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.3 Incorporate literature in presentations, such as book reports
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.3.9 Edit for grammar, mechanics, usage, and spelling
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
7.4.3 Incorporate research into presentations
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences

8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.6.6 Locate examples of professional uses of language including jargon and formal styles
9.1.4 Evaluate relevancy of inform
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.6 Elaborate ideas through word choice and description using grade-level vocabulary
9.3.8 Use supporting details
9.3.12 Use technology; e.g., publishing software and graphic programs, to present written work
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.1 Form questions to focus research
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.5 Organize information from a variety of sources into a unified whole
10.1.11 Present research information; e.g., informative speech, PowerPoint presentation, video presentation
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.9 Use precise language to describe people, places, and things
10.4.3 Formulate questions in response to a verbal message
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.1.1 Research topics independently using appropriate sources
11.1.2 Evaluate and incorporate information from primary sources; e.g., interviews and surveys
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.1.5 Synthesize information in a logical sequence
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.3.1 Gather information supporting multiple sides of an issue
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning

11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.1.3 Develop a research question
12.2.2 Critique details, facts, and concepts from nonfiction genres
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

Standard 6: Basic Communication Skills
Topic 3: Listening and Speaking Skills

Competency 6.3.1: Discuss skills for active listening.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.3 Incorporate literature in presentations, such as book reports
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.3.9 Edit for grammar, mechanics, usage, and spelling
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
7.4.3 Incorporate research into presentations
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms,

prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.6.6 Locate examples of professional uses of language including jargon and formal styles

9.1.4 Evaluate relevancy of inform

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary

9.3.6 Elaborate ideas through word choice and description using grade-level vocabulary

9.3.8 Use supporting details

9.3.12 Use technology; e.g., publishing software and graphic programs, to present written work

9.4.1 Analyze the audience and adjust message and wording to suit purpose

9.4.4 Engage in a group discussion

9.4.5 Use critical listening skills; i.e., reflection

10.1.1 Form questions to focus research

10.1.3 Gather reliable information to support a thesis

10.1.4 Use relevant information

10.1.5 Organize information from a variety of sources into a unified whole

10.1.11 Present research information; e.g., informative speech, PowerPoint presentation, video presentation

10.3.2 Defend a personal opinion using facts as support

10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary

10.3.9 Use precise language to describe people, places, and things

10.4.3 Formulate questions in response to a verbal message

10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.1.1 Research topics independently using appropriate sources

11.1.2 Evaluate and incorporate information from primary sources; e.g., interviews and surveys

11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise

11.1.4 Verify the quality, accuracy, and usefulness of information

11.1.5 Synthesize information in a logical sequence

11.2.5 Locate ambiguities in written text

11.2.6 Apply prior knowledge of content to interpret meaning of text

11.3.1 Gather information supporting multiple sides of an issue

11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning

11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

12.1.2 Plan a research strategy

12.1.3 Develop a research question

12.2.2 Critique details, facts, and concepts from nonfiction genres
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

Standard 6: Basic Communication Skills
Topic 3: Listening and Speaking Skills
Competency 6.3.2: Discuss the importance of speaking clearly.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.3 Incorporate literature in presentations, such as book reports
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.3.9 Edit for grammar, mechanics, usage, and spelling
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
7.4.3 Incorporate research into presentations
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids –

dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.6.6 Locate examples of professional uses of language including jargon and formal styles

9.1.4 Evaluate relevancy of inform

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary

9.3.6 Elaborate ideas through word choice and description using grade-level vocabulary

9.3.8 Use supporting details

9.3.12 Use technology; e.g., publishing software and graphic programs, to present written work

9.4.1 Analyze the audience and adjust message and wording to suit purpose

9.4.4 Engage in a group discussion

9.4.5 Use critical listening skills; i.e., reflection

10.1.1 Form questions to focus research

10.1.3 Gather reliable information to support a thesis

10.1.4 Use relevant information

10.1.5 Organize information from a variety of sources into a unified whole

10.1.11 Present research information; e.g., informative speech, PowerPoint presentation, video presentation

10.3.2 Defend a personal opinion using facts as support

10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary

10.3.9 Use precise language to describe people, places, and things

10.4.3 Formulate questions in response to a verbal message

10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

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11.1.2 Evaluate and incorporate information from primary sources; e.g., interviews and surveys

11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise

11.1.4 Verify the quality, accuracy, and usefulness of information

11.1.5 Synthesize information in a logical sequence

11.2.5 Locate ambiguities in written text

11.2.6 Apply prior knowledge of content to interpret meaning of text

11.3.1 Gather information supporting multiple sides of an issue

11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning

11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

12.1.2 Plan a research strategy

12.1.3 Develop a research question

12.2.2 Critique details, facts, and concepts from nonfiction genres

12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
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6.2.5 Use data from scientific investigations to determine relationships and patterns
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

Standard 6: Basic Communication Skills
Topic 3: Listening and Speaking Skills
Competency 6.3.3: Explain the importance of communicating in a professional manner.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.3 Incorporate literature in presentations, such as book reports
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.3.9 Edit for grammar, mechanics, usage, and spelling
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
7.4.3 Incorporate research into presentations
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make

sense of text

8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.6.6 Locate examples of professional uses of language including jargon and formal styles

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9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary

9.3.6 Elaborate ideas through word choice and description using grade-level vocabulary

9.3.8 Use supporting details

9.3.12 Use technology; e.g., publishing software and graphic programs, to present written work

9.4.1 Analyze the audience and adjust message and wording to suit purpose

9.4.4 Engage in a group discussion

9.4.5 Use critical listening skills; i.e., reflection

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10.1.3 Gather reliable information to support a thesis

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10.3.2 Defend a personal opinion using facts as support

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11.2.5 Locate ambiguities in written text

11.2.6 Apply prior knowledge of content to interpret meaning of text

11.3.1 Gather information supporting multiple sides of an issue

11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning

11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions

12.1.2 Plan a research strategy

12.1.3 Develop a research question

12.2.2 Critique details, facts, and concepts from nonfiction genres

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forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
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6.2.5 Use data from scientific investigations to determine relationships and patterns
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

Standard 7: Basic Employability Skills
Topic 1: Foundations of employability
Competency 7.1.1: Describe the employability skills needed in a successful company.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.3 Produce persuasive writing; e.g., opinion, essay, business letter
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.3 Incorporate literature in presentations, such as book reports
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.3 Generate and revise predictions to aid comprehension and understanding of the meaning of texts
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.3.1 Produce research-based writing; e.g., news article, book reports, essay
7.3.6 Incorporate grade-level appropriate vocabulary in writing
7.3.9 Edit for grammar, mechanics, usage, and spelling
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview

7.4.3 Incorporate research into presentations
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.3.1 Compose informative writing, e.g., research, biographies, autobiographies, news articles, interviews
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.6.6 Locate examples of professional uses of language including jargon and formal styles
9.1.1 Choose a broad topic, state the problem, or question
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.1.5 Organize information from a variety of sources; e.g., chronological
9.1.6 Summarize information
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.6 Elaborate ideas through word choice and description using grade-level vocabulary
9.3.8 Use supporting details
9.3.12 Use technology; e.g., publishing software and graphic programs, to present written work
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.1 Form questions to focus research
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.5 Organize information from a variety of sources into a unified whole

10.1.7 Paraphrase information
10.1.11 Present research information; e.g., informative speech, PowerPoint presentation, video presentation
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.9 Use precise language to describe people, places, and things
10.4.3 Formulate questions in response to a verbal message
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.1.1 Research topics independently using appropriate sources
11.1.2 Evaluate and incorporate information from primary sources; e.g., interviews and surveys
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.1.5 Synthesize information in a logical sequence
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.1.3 Develop a research question
12.2.2 Critique details, facts, and concepts from nonfiction genres
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns

6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.7.1 Explain how personal health is related to fitness, substance abuse, sexual activity, and nutrition
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

Standard 7: Basic Employability Skills
Topic 1: Foundations of employability
Competency 7.1.2: Explain that successful companies lead to a strong U.S. economy.

<u>English/Language Arts</u>
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.3 Produce persuasive writing; e.g., opinion, essay, business letter
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview

6.4.3 Incorporate literature in presentations, such as book reports
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.3 Generate and revise predictions to aid comprehension and understanding of the meaning of texts
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.3.1 Produce research-based writing; e.g., news article, book reports, essay
7.3.6 Incorporate grade-level appropriate vocabulary in writing
7.3.9 Edit for grammar, mechanics, usage, and spelling
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
7.4.3 Incorporate research into presentations
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.3.1 Compose informative writing, e.g., research, biographies, autobiographies, news articles, interviews
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

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12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
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11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

Standard 7: Basic Employability Skills

Topic 2: The Construction Business
Competency 7.2.1: Discuss the importance of a construction business and organizational structure.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.3 Produce persuasive writing; e.g., opinion, essay, business letter
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.3 Incorporate literature in presentations, such as book reports
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.3 Generate and revise predictions to aid comprehension and understanding of the meaning of texts
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.3.1 Produce research-based writing; e.g., news article, book reports, essay
7.3.6 Incorporate grade-level appropriate vocabulary in writing
7.3.9 Edit for grammar, mechanics, usage, and spelling
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
7.4.3 Incorporate research into presentations

7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
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8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
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9.1.3 Cross-reference information
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9.1.5 Organize information from a variety of sources; e.g., chronological
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11.2.5 Locate ambiguities in written text
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11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
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11.3.5 Use a variety of supporting details
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12.1.3 Develop a research question
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Mathematics

- No existing North Dakota Mathematics standard

Science

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11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

Standard 7: Basic Employability Skills
Topic 2: The Construction Business
Competency 7.2.2: Explain entrepreneurship.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
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6.3.3 Produce persuasive writing; e.g., opinion, essay, business letter
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.3 Incorporate literature in presentations, such as book reports
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic

7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.3 Generate and revise predictions to aid comprehension and understanding of the meaning of texts
7.2.4 Use prior knowledge and experiences to aid text comprehension
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7.3.1 Produce research-based writing; e.g., news article, book reports, essay
7.3.6 Incorporate grade-level appropriate vocabulary in writing
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12.2.2 Critique details, facts, and concepts from nonfiction genres
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

Standard 7: Basic Employability Skills
Topic 3: Critical Thinking Skills-demonstrate critical thinking skills and the ability to solve problems using those skills.
Competency 7.3.1: Explain how critical thinking skills can be used to solve problems

effectively and draw conclusions.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.3 Produce persuasive writing; e.g., opinion, essay, business letter
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.3 Incorporate literature in presentations, such as book reports
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.3 Generate and revise predictions to aid comprehension and understanding of the meaning of texts
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.3.1 Produce research-based writing; e.g., news article, book reports, essay
7.3.6 Incorporate grade-level appropriate vocabulary in writing
7.3.9 Edit for grammar, mechanics, usage, and spelling
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
7.4.3 Incorporate research into presentations
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations

8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.3.1 Compose informative writing, e.g., research, biographies, autobiographies, news articles, interviews
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.6.6 Locate examples of professional uses of language including jargon and formal styles
9.1.1 Choose a broad topic, state the problem, or question
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.1.5 Organize information from a variety of sources; e.g., chronological
9.1.6 Summarize information
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.6 Elaborate ideas through word choice and description using grade-level vocabulary
9.3.8 Use supporting details
9.3.12 Use technology; e.g., publishing software and graphic programs, to present written work
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.1 Form questions to focus research
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.5 Organize information from a variety of sources into a unified whole
10.1.7 Paraphrase information
10.1.11 Present research information; e.g., informative speech, PowerPoint presentation, video presentation

10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.9 Use precise language to describe people, places, and things
10.4.3 Formulate questions in response to a verbal message
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.1.1 Research topics independently using appropriate sources
11.1.2 Evaluate and incorporate information from primary sources; e.g., interviews and surveys
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.1.5 Synthesize information in a logical sequence
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.1.3 Develop a research question
12.2.2 Critique details, facts, and concepts from nonfiction genres
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g.,

journals, lab reports, diagrams, presentations, discussions)
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

Standard 7: Basic Employability Skills
Topic 3: Critical Thinking Skills-demonstrate critical thinking skills and the ability to solve problems using those skills.
Competency 7.3.2: Describe barriers to effective problem solving.

<u>English/Language Arts</u>
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.3 Produce persuasive writing; e.g., opinion, essay, business letter
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.3 Incorporate literature in presentations, such as book reports
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information

7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.3 Generate and revise predictions to aid comprehension and understanding of the meaning of texts
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.3.1 Produce research-based writing; e.g., news article, book reports, essay
7.3.6 Incorporate grade-level appropriate vocabulary in writing
7.3.9 Edit for grammar, mechanics, usage, and spelling
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
7.4.3 Incorporate research into presentations
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.3.1 Compose informative writing, e.g., research, biographies, autobiographies, news articles, interviews
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.6.6 Locate examples of professional uses of language including jargon and formal styles
9.1.1 Choose a broad topic, state the problem, or question
9.1.3 Cross-reference information

9.1.4 Evaluate relevancy of inform
9.1.5 Organize information from a variety of sources; e.g., chronological
9.1.6 Summarize information
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.6 Elaborate ideas through word choice and description using grade-level vocabulary
9.3.8 Use supporting details
9.3.12 Use technology; e.g., publishing software and graphic programs, to present written work
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.1 Form questions to focus research
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.5 Organize information from a variety of sources into a unified whole
10.1.7 Paraphrase information
10.1.11 Present research information; e.g., informative speech, PowerPoint presentation, video presentation
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
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11.1.4 Verify the quality, accuracy, and usefulness of information
11.1.5 Synthesize information in a logical sequence
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.1.3 Develop a research question

12.2.2 Critique details, facts, and concepts from nonfiction genres
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

Standard 7: Basic Employability Skills
Topic 3: Critical Thinking Skills-demonstrate critical thinking skills and the ability to solve problems using those skills.
Competency 7.3.3: Discuss the importance of problem solving and using critical thinking skills.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.3 Produce persuasive writing; e.g., opinion, essay, business letter
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.3 Incorporate literature in presentations, such as book reports
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.3 Generate and revise predictions to aid comprehension and understanding of the meaning of texts
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.3.1 Produce research-based writing; e.g., news article, book reports, essay
7.3.6 Incorporate grade-level appropriate vocabulary in writing
7.3.9 Edit for grammar, mechanics, usage, and spelling
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
7.4.3 Incorporate research into presentations
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources

8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.3.1 Compose informative writing, e.g., research, biographies, autobiographies, news articles, interviews
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.6.6 Locate examples of professional uses of language including jargon and formal styles
9.1.1 Choose a broad topic, state the problem, or question
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.1.5 Organize information from a variety of sources; e.g., chronological
9.1.6 Summarize information
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
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9.3.6 Elaborate ideas through word choice and description using grade-level vocabulary
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9.3.12 Use technology; e.g., publishing software and graphic programs, to present written work
9.4.1 Analyze the audience and adjust message and wording to suit purpose
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9.4.5 Use critical listening skills; i.e., reflection
10.1.1 Form questions to focus research
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.5 Organize information from a variety of sources into a unified whole
10.1.7 Paraphrase information
10.1.11 Present research information; e.g., informative speech, PowerPoint presentation, video presentation
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support

10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
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11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.1.5 Synthesize information in a logical sequence
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.1.3 Develop a research question
12.2.2 Critique details, facts, and concepts from nonfiction genres
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
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6.2.5 Use data from scientific investigations to determine relationships and patterns
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies

8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

Standard 7: Basic Employability Skills
Topic 3: Critical Thinking Skills-demonstrate critical thinking skills and the ability to solve problems using those skills.
Competency 7.3.4: Discuss the problems with planning and scheduling.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
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6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.3 Produce persuasive writing; e.g., opinion, essay, business letter
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.3 Incorporate literature in presentations, such as book reports
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.3 Generate and revise predictions to aid comprehension and understanding of the meaning of texts
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.3.1 Produce research-based writing; e.g., news article, book reports, essay
7.3.6 Incorporate grade-level appropriate vocabulary in writing
7.3.9 Edit for grammar, mechanics, usage, and spelling
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.2 Use supporting materials for topic development; e.g., research, personal experience,

literature, interview

7.4.3 Incorporate research into presentations

7.4.4 Construct questions in response to a speaker

7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations

8.1.1 Use questions to narrow research topic

8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources

8.1.4 Use information from multiple sources when presenting research findings to defined audiences

8.2.2 Use prior knowledge and experiences to aid text comprehension

8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing

8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

8.3.1 Compose informative writing, e.g., research, biographies, autobiographies, news articles, interviews

8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.6.6 Locate examples of professional uses of language including jargon and formal styles

9.1.1 Choose a broad topic, state the problem, or question

9.1.3 Cross-reference information

9.1.4 Evaluate relevancy of inform

9.1.5 Organize information from a variety of sources; e.g., chronological

9.1.6 Summarize information

9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary

9.3.1 Write expository texts; e.g., essays, directions, and letters

9.3.6 Elaborate ideas through word choice and description using grade-level vocabulary

9.3.8 Use supporting details

9.3.12 Use technology; e.g., publishing software and graphic programs, to present written work

9.4.1 Analyze the audience and adjust message and wording to suit purpose

9.4.4 Engage in a group discussion

9.4.5 Use critical listening skills; i.e., reflection

10.1.1 Form questions to focus research

10.1.3 Gather reliable information to support a thesis

10.1.4 Use relevant information

10.1.5 Organize information from a variety of sources into a unified whole
10.1.7 Paraphrase information
10.1.11 Present research information; e.g., informative speech, PowerPoint presentation, video presentation
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.9 Use precise language to describe people, places, and things
10.4.3 Formulate questions in response to a verbal message
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.1.1 Research topics independently using appropriate sources
11.1.2 Evaluate and incorporate information from primary sources; e.g., interviews and surveys
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.1.5 Synthesize information in a logical sequence
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.1.3 Develop a research question
12.2.2 Critique details, facts, and concepts from nonfiction genres
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data

6.2.5 Use data from scientific investigations to determine relationships and patterns
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

Standard 7: Basic Employability Skills
Topic 4: Computer Skills-demonstrate knowledge of computer systems and explain common uses for computers in the construction industry.
Competency 7.4.1: Identify the components and terms of a computer.

<u>English/Language Arts</u>
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.3 Produce persuasive writing; e.g., opinion, essay, business letter
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview

6.4.3 Incorporate literature in presentations, such as book reports
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.3 Generate and revise predictions to aid comprehension and understanding of the meaning of texts
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.3.1 Produce research-based writing; e.g., news article, book reports, essay
7.3.6 Incorporate grade-level appropriate vocabulary in writing
7.3.9 Edit for grammar, mechanics, usage, and spelling
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
7.4.3 Incorporate research into presentations
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
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8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.6.6 Locate examples of professional uses of language including jargon and formal styles
9.1.1 Choose a broad topic, state the problem, or question
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.1.5 Organize information from a variety of sources; e.g., chronological
9.1.6 Summarize information
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.6 Elaborate ideas through word choice and description using grade-level vocabulary
9.3.8 Use supporting details
9.3.12 Use technology; e.g., publishing software and graphic programs, to present written work
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.1 Form questions to focus research
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.5 Organize information from a variety of sources into a unified whole
10.1.7 Paraphrase information
10.1.11 Present research information; e.g., informative speech, PowerPoint presentation, video presentation
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.9 Use precise language to describe people, places, and things
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10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.1.1 Research topics independently using appropriate sources
11.1.2 Evaluate and incorporate information from primary sources; e.g., interviews and surveys
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.1.5 Synthesize information in a logical sequence
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance

meaning
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.1.3 Develop a research question
12.2.2 Critique details, facts, and concepts from nonfiction genres
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.3 Explain the relationship between science and technology
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices,

deforestation, land-use practices, land-management strategies) on the environment

9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)

9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment

9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)

11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)

Standard 7: Basic Employability Skills
Topic 4: Computer Skills-demonstrate knowledge of computer systems and explain common uses for computers in the construction industry.
Competency 7.4.2: Examine software packages commonly used in the construction industry.

English/Language Arts

6.1.1 Pose relevant research questions

6.1.2 Use sources that are appropriate for the research purpose

6.1.3 Differentiate between accurate and inaccurate information

6.1.4 Use information from several sources

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.4 Use graphic organizers and summarizing to enhance comprehension

6.2.5 Use prior knowledge and experiences to aid text comprehension

6.2.6 Read to be informed, entertained, and persuaded

6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview

6.4.3 Incorporate literature in presentations, such as book reports

6.4.5 Use appropriate volume and eye contact when speaking

7.1.1 Generate and evaluate questions relevant to research topic

7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information

7.1.3 Question the accuracy and relevance of information

7.1.4 Organize research information

7.1.5 Present research findings, including information and evidence from a variety of sources

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7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview

7.4.3 Incorporate research into presentations

7.4.4 Construct questions in response to a speaker

7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations

8.1.1 Use questions to narrow research topic

8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources

8.1.4 Use information from multiple sources when presenting research findings to defined audiences

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9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary

9.4.1 Analyze the audience and adjust message and wording to suit purpose

9.4.4 Engage in a group discussion

9.4.5 Use critical listening skills; i.e., reflection

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12.2.8 Use technical language/jargon to decipher meaning
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.3 Explain the relationship between science and technology

6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)
9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)
9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)

Standard 7: Basic Employability Skills
Topic 4: Computer Skills-demonstrate knowledge of computer systems and explain common uses for computers in the construction industry.
Competency 7.4.3: Demonstrate how to use email

<u>English/Language Arts</u>
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources

6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.3 Incorporate literature in presentations, such as book reports
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
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7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
7.4.3 Incorporate research into presentations
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
9.1.1 Choose a broad topic, state the problem, or question
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.1.5 Organize information from a variety of sources; e.g., chronological
9.1.6 Summarize information
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.1 Form questions to focus research
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.5 Organize information from a variety of sources into a unified whole
10.1.7 Paraphrase information
10.1.11 Present research information; e.g., informative speech, PowerPoint presentation, video presentation
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.4.3 Formulate questions in response to a verbal message
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.1.1 Research topics independently using appropriate sources
11.1.2 Evaluate and incorporate information from primary sources; e.g., interviews and surveys
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.1.5 Synthesize information in a logical sequence
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.1.3 Develop a research question
12.2.2 Critique details, facts, and concepts from nonfiction genres

12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
6.6.3 Explain the relationship between science and technology
6.8.2 Identify scientific advances that have resulted in new ideas and further advance
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.5.3 Identify the Earth's renewable and nonrenewable resources (e.g., solar, wind, fossil fuels, water, soil, metals)
7.6.1 Identify ways in which technology has influenced the course of history and improved the quality of life
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
9-10.6.1 Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills)
9-10.6.2 Explain how scientific principles have been used to create common technologies (e.g., household appliances, automotive parts, agricultural equipment, textiles, fabrics, computers, Internet resources, CD-ROMs)

9-10.6.3 Explain how emerging technologies (e.g., genetic manipulation, biofuels, and hydrogen fuels) may impact society and the environment
9-10.8.4 Identify theories that have changed over time (e.g., alchemy, atomic structure, model of the solar system)
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)
11-12.6.1 Select and use appropriate technologies, tools, and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills, CBL, graphing calculators)

Standard 7: Basic Employability Skills
Topic 5: Relationship Skills
Competency 7.5.1: Describe the importance of maintaining positive working relationships with co-workers.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.3 Produce persuasive writing; e.g., opinion, essay, business letter
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.3 Incorporate literature in presentations, such as book reports
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.3 Generate and revise predictions to aid comprehension and understanding of the meaning of texts
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms,

prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

7.3.1 Produce research-based writing; e.g., news article, book reports, essay
7.3.6 Incorporate grade-level appropriate vocabulary in writing
7.3.9 Edit for grammar, mechanics, usage, and spelling
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
7.4.3 Incorporate research into presentations
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.3.1 Compose informative writing, e.g., research, biographies, autobiographies, news articles, interviews
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.6.6 Locate examples of professional uses of language including jargon and formal styles
9.1.1 Choose a broad topic, state the problem, or question
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.1.5 Organize information from a variety of sources; e.g., chronological
9.1.6 Summarize information
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters

9.3.6 Elaborate ideas through word choice and description using grade-level vocabulary
9.3.8 Use supporting details
9.3.12 Use technology; e.g., publishing software and graphic programs, to present written work
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.1 Form questions to focus research
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.5 Organize information from a variety of sources into a unified whole
10.1.7 Paraphrase information
10.1.11 Present research information; e.g., informative speech, PowerPoint presentation, video presentation
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.9 Use precise language to describe people, places, and things
10.4.3 Formulate questions in response to a verbal message
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.1.1 Research topics independently using appropriate sources
11.1.2 Evaluate and incorporate information from primary sources; e.g., interviews and surveys
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.1.5 Synthesize information in a logical sequence
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.1.3 Develop a research question
12.2.2 Critique details, facts, and concepts from nonfiction genres
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

Standard 7: Basic Employability Skills
Topic 5: Relationship Skills
Competency 7.5.2: Discuss the importance of self presentation skills

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary,

thesaurus, base words

6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.3 Produce persuasive writing; e.g., opinion, essay, business letter
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.3 Incorporate literature in presentations, such as book reports
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.3 Generate and revise predictions to aid comprehension and understanding of the meaning of texts
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.3.1 Produce research-based writing; e.g., news article, book reports, essay
7.3.6 Incorporate grade-level appropriate vocabulary in writing
7.3.9 Edit for grammar, mechanics, usage, and spelling
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
7.4.3 Incorporate research into presentations
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids –

dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text

8.3.1 Compose informative writing, e.g., research, biographies, autobiographies, news articles, interviews

8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.6.6 Locate examples of professional uses of language including jargon and formal styles

9.1.1 Choose a broad topic, state the problem, or question

9.1.3 Cross-reference information

9.1.4 Evaluate relevancy of inform

9.1.5 Organize information from a variety of sources; e.g., chronological

9.1.6 Summarize information

9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary

9.3.1 Write expository texts; e.g., essays, directions, and letters

9.3.6 Elaborate ideas through word choice and description using grade-level vocabulary

9.3.8 Use supporting details

9.3.12 Use technology; e.g., publishing software and graphic programs, to present written work

9.4.1 Analyze the audience and adjust message and wording to suit purpose

9.4.4 Engage in a group discussion

9.4.5 Use critical listening skills; i.e., reflection

10.1.1 Form questions to focus research

10.1.3 Gather reliable information to support a thesis

10.1.4 Use relevant information

10.1.5 Organize information from a variety of sources into a unified whole

10.1.7 Paraphrase information

10.1.11 Present research information; e.g., informative speech, PowerPoint presentation, video presentation

10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

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11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
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11.3.5 Use a variety of supporting details
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12.1.3 Develop a research question
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12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
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6.6.1 Identify examples of how technologies have evolved
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7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.2.3 Identify questions and concepts that guide scientific investigations

9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

Standard 7: Basic Employability Skills
Topic 5: Relationship Skills
Competency 7.5.3: Discuss techniques for appropriate conflict resolution on the job site.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.3 Produce persuasive writing; e.g., opinion, essay, business letter
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.3 Incorporate literature in presentations, such as book reports
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.3 Generate and revise predictions to aid comprehension and understanding of the meaning of texts
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and

make sense of text

7.3.1 Produce research-based writing; e.g., news article, book reports, essay
7.3.6 Incorporate grade-level appropriate vocabulary in writing
7.3.9 Edit for grammar, mechanics, usage, and spelling
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
7.4.3 Incorporate research into presentations
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
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8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
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9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.6 Elaborate ideas through word choice and description using grade-level vocabulary
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9.3.12 Use technology; e.g., publishing software and graphic programs, to present written work
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11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.1.3 Develop a research question
12.2.2 Critique details, facts, and concepts from nonfiction genres
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

Standard 7: Basic Employability Skills
Topic 5: Relationship Skills
Competency 7.5.4: Explain why it is important to be able to give and receive criticism.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words

6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.3 Produce persuasive writing; e.g., opinion, essay, business letter
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.3 Incorporate literature in presentations, such as book reports
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.3 Generate and revise predictions to aid comprehension and understanding of the meaning of texts
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.3.1 Produce research-based writing; e.g., news article, book reports, essay
7.3.6 Incorporate grade-level appropriate vocabulary in writing
7.3.9 Edit for grammar, mechanics, usage, and spelling
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
7.4.3 Incorporate research into presentations
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make

sense of text

8.3.1 Compose informative writing, e.g., research, biographies, autobiographies, news articles, interviews

8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade

8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview

8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations

8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations

8.6.6 Locate examples of professional uses of language including jargon and formal styles

9.1.1 Choose a broad topic, state the problem, or question

9.1.3 Cross-reference information

9.1.4 Evaluate relevancy of inform

9.1.5 Organize information from a variety of sources; e.g., chronological

9.1.6 Summarize information

9.2.7 Access prior knowledge to interpret meaning

9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary

9.3.1 Write expository texts; e.g., essays, directions, and letters

9.3.6 Elaborate ideas through word choice and description using grade-level vocabulary

9.3.8 Use supporting details

9.3.12 Use technology; e.g., publishing software and graphic programs, to present written work

9.4.1 Analyze the audience and adjust message and wording to suit purpose

9.4.4 Engage in a group discussion

9.4.5 Use critical listening skills; i.e., reflection

10.1.1 Form questions to focus research

10.1.3 Gather reliable information to support a thesis

10.1.4 Use relevant information

10.1.5 Organize information from a variety of sources into a unified whole

10.1.7 Paraphrase information

10.1.11 Present research information; e.g., informative speech, PowerPoint presentation, video presentation

10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.

10.3.2 Defend a personal opinion using facts as support

10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary

10.3.9 Use precise language to describe people, places, and things

10.4.3 Formulate questions in response to a verbal message

10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes

11.1.1 Research topics independently using appropriate sources

11.1.2 Evaluate and incorporate information from primary sources; e.g., interviews and surveys

11.1.3 Evaluate reliability, validity, comprehensiveness, author’s bias, and author’s expertise

11.1.4 Verify the quality, accuracy, and usefulness of information
11.1.5 Synthesize information in a logical sequence
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
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11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
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12.1.3 Develop a research question
12.2.2 Critique details, facts, and concepts from nonfiction genres
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12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
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6.6.1 Identify examples of how technologies have evolved
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
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9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions

9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

Standard 7: Basic Employability Skills
Topic 5: Relationship Skills
Competency 7.5.5: Discuss the concept of teamwork and explain how teamwork is integral to construction work.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.3 Produce persuasive writing; e.g., opinion, essay, business letter
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.3 Incorporate literature in presentations, such as book reports
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.3 Generate and revise predictions to aid comprehension and understanding of the meaning of texts
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and

make sense of text

7.3.1 Produce research-based writing; e.g., news article, book reports, essay
7.3.6 Incorporate grade-level appropriate vocabulary in writing
7.3.9 Edit for grammar, mechanics, usage, and spelling
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
7.4.3 Incorporate research into presentations
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
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8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.6.6 Locate examples of professional uses of language including jargon and formal styles
9.1.1 Choose a broad topic, state the problem, or question
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.1.5 Organize information from a variety of sources; e.g., chronological
9.1.6 Summarize information
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.6 Elaborate ideas through word choice and description using grade-level vocabulary
9.3.8 Use supporting details

9.3.12 Use technology; e.g., publishing software and graphic programs, to present written work
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection
10.1.1 Form questions to focus research
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.5 Organize information from a variety of sources into a unified whole
10.1.7 Paraphrase information
10.1.11 Present research information; e.g., informative speech, PowerPoint presentation, video presentation
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
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11.2.5 Locate ambiguities in written text
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12.1.3 Develop a research question
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12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
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Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)
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7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
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8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
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9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

Standard 7: Basic Employability Skills
Topic 5: Relationship Skills
Competency 7.5.6: Discuss the various styles of leadership.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded

6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.3 Produce persuasive writing; e.g., opinion, essay, business letter
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.3 Incorporate literature in presentations, such as book reports
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.3 Generate and revise predictions to aid comprehension and understanding of the meaning of texts
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.3.1 Produce research-based writing; e.g., news article, book reports, essay
7.3.6 Incorporate grade-level appropriate vocabulary in writing
7.3.9 Edit for grammar, mechanics, usage, and spelling
7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
7.4.3 Incorporate research into presentations
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
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8.3.1 Compose informative writing, e.g., research, biographies, autobiographies, news articles, interviews

8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
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Mathematics

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8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
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deforestation, land-use practices, land-management strategies) on the environment

11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

Standard 7: Basic Employability Skills
Topic 6: Workplace Issues
Competency 7.6.1: Discuss the types of harassment that may be present on the worksite.

English/Language Arts

6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
6.2.4 Use graphic organizers and summarizing to enhance comprehension
6.2.5 Use prior knowledge and experiences to aid text comprehension
6.2.6 Read to be informed, entertained, and persuaded
6.3.1 Produce informative writing; e.g., research-based report, instructions
6.3.3 Produce persuasive writing; e.g., opinion, essay, business letter
6.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
6.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
6.4.3 Incorporate literature in presentations, such as book reports
6.4.5 Use appropriate volume and eye contact when speaking
7.1.1 Generate and evaluate questions relevant to research topic
7.1.2 Use a variety of sources, such as computer catalogs, magazines, and newspapers, to access information
7.1.3 Question the accuracy and relevance of information
7.1.4 Organize research information
7.1.5 Present research findings, including information and evidence from a variety of sources
7.2.3 Generate and revise predictions to aid comprehension and understanding of the meaning of texts
7.2.4 Use prior knowledge and experiences to aid text comprehension
7.2.5 Read to be informed, entertained, and persuade
7.2.11 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, analogies, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
7.3.1 Produce research-based writing; e.g., news article, book reports, essay
7.3.6 Incorporate grade-level appropriate vocabulary in writing
7.3.9 Edit for grammar, mechanics, usage, and spelling

7.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
7.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
7.4.3 Incorporate research into presentations
7.4.4 Construct questions in response to a speaker
7.4.6 Use volume, eye contact, rate, and pronunciation effectively in oral presentations
8.1.1 Use questions to narrow research topic
8.1.2 Use a variety of primary and/or secondary sources to access information; i.e., computer catalogs, magazines, newspapers, and primary sources
8.1.4 Use information from multiple sources when presenting research findings to defined audiences
8.2.2 Use prior knowledge and experiences to aid text comprehension
8.2.3 Use a variety of strategies to construct meaning from text; e.g., vocabulary building strategies, skimming, paraphrasing, summarizing, brainstorming, and discussing
8.2.9 Use vocabulary building skills and strategies; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words context clues, word reference aids – dictionary, glossary, thesaurus to determine the meaning of unfamiliar words and make sense of text
8.3.1 Compose informative writing, e.g., research, biographies, autobiographies, news articles, interviews
8.4.1 Speak with a purpose using delivery techniques appropriate for different audiences to inform, demonstrate, entertain, or persuade
8.4.2 Use supporting materials for topic development; e.g., research, personal experience, literature, interview
8.4.3 Speak for different purposes; e.g., group discussions, research presentations and demonstrations
8.4.4 Use volume, eye contact, rate, pronunciation, and articulation effectively in oral presentations
8.6.6 Locate examples of professional uses of language including jargon and formal styles
9.1.1 Choose a broad topic, state the problem, or question
9.1.3 Cross-reference information
9.1.4 Evaluate relevancy of inform
9.1.5 Organize information from a variety of sources; e.g., chronological
9.1.6 Summarize information
9.2.7 Access prior knowledge to interpret meaning
9.2.8 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
9.2.15 Build vocabulary by reading a variety of grade-level texts and applying new vocabulary
9.3.1 Write expository texts; e.g., essays, directions, and letters
9.3.6 Elaborate ideas through word choice and description using grade-level vocabulary
9.3.8 Use supporting details
9.3.12 Use technology; e.g., publishing software and graphic programs, to present written work
9.4.1 Analyze the audience and adjust message and wording to suit purpose
9.4.4 Engage in a group discussion
9.4.5 Use critical listening skills; i.e., reflection

10.1.1 Form questions to focus research
10.1.3 Gather reliable information to support a thesis
10.1.4 Use relevant information
10.1.5 Organize information from a variety of sources into a unified whole
10.1.7 Paraphrase information
10.1.11 Present research information; e.g., informative speech, PowerPoint presentation, video presentation
10.2.3 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
10.3.2 Defend a personal opinion using facts as support
10.3.5 Elaborate ideas through word choice and description using grade-level vocabulary
10.3.9 Use precise language to describe people, places, and things
10.4.3 Formulate questions in response to a verbal message
10.5.2 Use media (e.g., television, film, music, electronic databases, videos, DVDs, comics, visual and performing arts, newspapers, and periodicals) for a variety of purposes
11.1.1 Research topics independently using appropriate sources
11.1.2 Evaluate and incorporate information from primary sources; e.g., interviews and surveys
11.1.3 Evaluate reliability, validity, comprehensiveness, author's bias, and author's expertise
11.1.4 Verify the quality, accuracy, and usefulness of information
11.1.5 Synthesize information in a logical sequence
11.2.5 Locate ambiguities in written text
11.2.6 Apply prior knowledge of content to interpret meaning of text
11.2.7 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
11.3.1 Gather information supporting multiple sides of an issue
11.3.5 Use a variety of supporting details
11.3.8 Incorporate visual aids (e.g., graphs, tables, and pictures) into written work to enhance meaning
11.4.2 Adapt to a variety of speaking and listening situations such as formal presentations, oral interpretations, and group discussions
12.1.2 Plan a research strategy
12.1.3 Develop a research question
12.2.2 Critique details, facts, and concepts from nonfiction genres
12.2.4 Read for a variety of purposes and intents; e.g., to become life-long readers, to model forms of writing, etc.
12.2.8 Use technical language/jargon to decipher meaning
12.4.2 Use tone, inflection, pitch, and emphasis effectively in oral presentations
12.4.3 Analyze the audience and adjust message and wording to suit the audience while speaking

Mathematics

- No existing North Dakota Mathematics standard

Science

6.2.1 Explain the components of a scientific investigation (e.g., hypothesis, observation, data collection, data interpretation, communication of results, replicable)

6.2.2 Select alternative methods of scientific investigations (e.g., library, internet, field work) to address different kinds of questions.
6.2.4 Use appropriate tools and techniques to gather and analyze data
6.2.5 Use data from scientific investigations to determine relationships and patterns
6.5.1 Identify adverse weather conditions and how humans prepare for them
6.6.1 Identify examples of how technologies have evolved
7.2.1 Communicate the results of scientific investigations using an appropriate format (e.g., journals, lab reports, diagrams, presentations, discussions)
7.6.3 Identify intended benefits and unintended consequences that result from the development and use of technologies
8.2.2 Use evidence to generate descriptions, explanations, predictions, and models
8.2.3 Use basic mathematics and statistics (e.g., operations, mean, median, mode, range, and estimation) to interpret quantitative data
8.2.4 Design and conduct a scientific investigation (e.g., making systematic observations, making accurate measurements, identifying and controlling variables)
9-10.1.1 Explain how models can be used to illustrate scientific principles
9-10.2.3 Identify questions and concepts that guide scientific investigations
9-10.2.8 Analyze data found in tables, charts, and graphs to formulate conclusions
9-10.3.1 Classify elements according to similar properties. (e.g., metal, nonmetal, solids, liquids, gases)
9-10.5.6 Explain the effects of human activities (e.g., dams, levees, farming practices, deforestation, land-use practices, land-management strategies) on the environment
11-12.1.4 Explain the relationship between form and function (e.g., atoms and ions, enzymes, aerodynamics)

Standard 7: Basic Employability Skills
Topic 6: Workplace Issues
Competency 7.6.2: Discuss the various types of alcohol and drug abuse due to work related stress.

<u>English/Language Arts</u>
6.1.1 Pose relevant research questions
6.1.2 Use sources that are appropriate for the research purpose
6.1.3 Differentiate between accurate and inaccurate information
6.1.4 Use information from several sources
6.2.3 Use word recognition skills and vocabulary building strategies to determine the meaning of unfamiliar words and make sense of text; e.g., synonyms/antonyms, prefixes/suffixes, multiple meaning words, context clues, word reference aids – dictionary, glossary, thesaurus, base words
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