Common Core Instructional Tools:

For special education teachers whose students will be assessed using the next generation of alternate assessment based on alternate achievement standards. These materials align with the Common Core State Standards and the Dynamic Learning Maps Essential Elements and are created specifically for use with students with severe cognitive disabilities.

Mathematics

Grade: Six

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This resource is the result of a collaborative effort of North Dakota Teachers, the Dynamics Learning Maps Alternate Assessment Consortium materials, the North Dakota Curriculum Initiative project, and the North Dakota Department of Public Instruction. We would like to thank the following educators for their dedication and diligence in working on these instructional materials to provide tools to help special education teachers whose students will take the alternate assessment based on alternate achievement standards and the Common Core State Standards.

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Resources:

- **Common Core State Standards** documents at
  http://www.dpi.state.nd.us/standard/common_core.shtm

- **North Dakota Curriculum Initiative** documents at
  http://ndcurriculuminitiative.org/common_core

- **Dynamic Leaning Maps** …..http://dynamiclearningmaps.org/
  Common Core Essential Elements and Assessment Achievement Level Descriptors
  Dynamic Learning Maps Essential Elements Versions 1 and 2

- **Kansas State Education Department** website: http://www.ksde.org/

- **Microsoft Office Clip Art**

Document Description:

This document is arranged by grade level so that teachers can access a single grade or multiple grades as needed. These materials are based on the Common Core State Standards and align with the Dynamic Learning Maps Essential Elements. North Dakota is a member of the Dynamic Learning Maps (DLM) Consortium of states creating the next generation of alternate assessments based on alternate achievement standards for assessing students with severe cognitive disabilities.

These materials are created by North Dakota teachers, for teachers, to assist them in accessing the Common Core State Standards in a meaningful fashion. Our goal was to provide teachers of students with severe cognitive disabilities with tools to get them started with the Common Core. They are intended to be tools for teachers to start with and build upon within their own local curriculum. They are not mandatory, but because they are linked to the DLM Essential Elements, they may be helpful in teaching the new standards which will begin to be assessed in 2014-15.

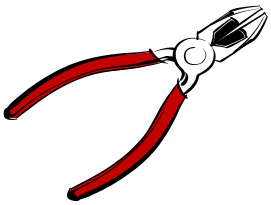
These tools are:

- ✓ Resources for teachers to use to access the Common Core State Standards (CCSS)
- ✓ Linked to the Dynamic Learning Maps (DLM) "Essential Elements"
- ✓ Ideas for learning activities based on CCSS
- ✓ Ideas on how to collect data on student performance
- ✓ Ideas on how to plan collaboration activities with general educators
- ✓ Resources to plan for "Communication Opportunities" for students who are learning a communication mode

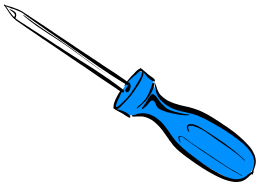
These tools are not:

- ✓ Not meant for test preparation purposes
- ✓ Not mandatory for use by educators
- ✓ Not meant to serve as curriculum

TOOLS FOR TEACHERS



Element Cards - A collection of Common Core State Standards materials specific to the Dynamic Learning Maps Essential Elements at each grade. These are meant to provide you with instructional ideas, key vocabulary, real world connections, and mapping of the concept the grade before and the grade after.



Educator Collaboration Plan - Planning sheets to prepare students for communication needs and for data collection in general education settings. Communication is key in teaching and assessing all students and especially those with severe cognitive disabilities. If a student does not have a consistent and reliable means of communicating what he/she knows and is able to do, it is very difficult to measure progress. More importantly, lack of a consistent communication system (high tech, low tech, or no tech) will affect the student's entire life in a negative way.

"I Can" Checklist - data sheet template for teacher use.

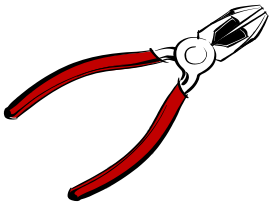
Website Resources - lists of web addresses where a variety of educational ideas can be found.

Element Card-Tool #1

Grade 6 ELA

Strand: Reading Literature

Cluster: Key Ideas and Details



(Element card number) **RL.6.1**

Standard RL.6.1: Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. (This is the grade level Common Core State Standard for this concept)	**Essential Element**: Analyze the text to determine what it says explicitly and what inferences must be drawn. (An Essential Element is a term used by Dynamic Learning Maps Consortium identifying 'specific knowledge and skills linked to the grade-level expectations identified in the Common Core State Standards')

Grade 5 Expectations: (What is related to this standard in the prior grade)	**Grade 7 Expectations:** (What is related to this standard in the next grade)
I Can Statements: (Statements of measures of specific skills related to this standard)	
Key Vocabulary: (Grade level vocabulary related to specific content in this standard)	**Supports (specific to student):** (IEP accommodations, assistive technology, communication system, visual aids, templates, active board, highlighters, etc.)
Instructional Examples: (Examples of activities that can be done to address this skill such as modeling, small group discussions, etc.)	
Real World Connections: (Activities from everyday life that relate to the content of this standard)	
Resources: (Educational materials or websites that can be accessed for ideas that may support this standard)	

Note: If the Essential Element says "Not Applicable" that means that the Dynamic Learning Maps Consortium did not address this Essential Element.

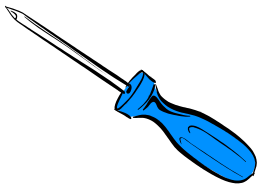
If the Essential Element says "See EE of a different number" (e.g. S-ID.2) that means that there is another Element Card that addresses some of this standard.

The Essential Elements are highlighted to indicate the importance of their focus.

These are the **Dynamic Learning Maps Claims and Conceptual Areas in Mathematics**.
This document was used by ND teachers who worked on these Tools. The Element cards may correlate or in some cases may not. High School divided the math documents into Consumer Math (measurement and data analysis and number sense), Algebra, and Geometry.

Claim 1	**Number Sense: Students demonstrate increasingly complex understanding of number sense.** Conceptual Areas in the Dynamic Learning Map: **MC 1.1 Understand number structures (counting, place value, fraction)** *Essential Elements Included: K.CC.1.4 ,5; 1.NBT.1a-b; 2.NBT.2a-b,3; 3.NBT,1,2,3; 4,NBT.3; 3.NF.1-3; 4.NF.1-2,3; 5.NF.1,2; 6.RP.1; 7.RP.1-3; 7.NS.2.c-d; M.EE.8.NS.2.a* **MC 1.2 Compare, compose, and decompose numbers and sets** *Essential Elements Included: K.CC.6; 1.NBT.2, 3, 4, 6; 2.NBT.1, 4, 5b; 4.NBT.1, 2; 5.NBT.1, 2, 3, 4; 6.NS.1, 5-8; 7.NS.3; 8.NS.2.b; 8.EE.1-4* **MC 1.3 Calculate accurately and efficiently using simple arithmetic operations** *Essential Elements Included: 2.NBT.5.a, 6-7; 3.OA.4; 4.NBT.4, 5, 6-7; 6.NS.2, 3; 7.NS.1, 2a, 2b; 8.NS.1;8.EE.1; HS.N-CN.2, 2.a, 2.b; HS.N-RN.1; HS.S-CP.1-5; HS.S-IC.1-22*
Claim 2	**Geometry: Students demonstrate increasingly complex spatial reasoning and understanding of geometric principles.** Conceptual Areas in the Dynamic Learning Map: **MC 2.1 Understand and use geometric properties of two- and three-dimensional shapes** *Essential Elements Included: K.MD.1; K.G.2-3; 1.G.1, 2; 2.G.1; 3.G.1; 4.G.1, 2, 2a, 2b; 5.G.1-4; 5.MD.3; 7.G.1, 2, 3, 5; 8.G.1, 2, 4, 5; HS.G-CO.1, 4-5; 6-8; HS.G-GMD.1-3, 4* **MC 2.2 Solve problems involving area, perimeter, and volume** *Essential Elements Included: 1.G.3; 3.G.2; 4.G.3; 4.MD.2; 5.MD.4-5; 6.G.1, 2; 7.G.4, 6; 8.G.9; HS.G-GMD.1-3; HS.G-GPE.7*
Claim 3	**Measurement Data and Analysis: Students demonstrate Increasingly complex understanding of measurement, data, and analytic procedures.** Conceptual Areas in the Dynamic Learning Map: **MC 3.1 Understand and use measurement principles and units of measure** *Essential Elements Included: 1.MD.1-2, 3a, 3b, 3c, 3d; 2.MD.1, 3-4, 5, 6, 7, 8; 3.MD.1, 2, 4; 4.MD.1, 2a, 2b, 2c, 2e; 5.MD.1a, 1b, 1c; HS.N-Q.1-3* **MC 3.2 Represent and interpret data displays** *Essential Elements Included: 1.MD.4; 2.MD.9-10; 3.MD.3; 4.MD.4a, 4b; 5.MD.2; 6.SP.1-2, 5; 7.SP.1-2, 3, 5-7; 8.SP.4; HS.S-ID. 1-2, 3, 4*
Claim 4	**Algebraic and functional reasoning: Students solve increasingly complex mathematical problems, making productive use of algebra and functions.** Conceptual Areas in the Dynamic Learning Map: **MC 4.1. Use operations and models to solve problems** *Essential Elements Included: K.OA.1, 1a, 1b, 2, 5a, 5b; 2.OA.1, 3, 4; 3.OA.1-2, 8; 4.OA.1-2, 3, 4; 6.EE.1-2, 3, 5-7; 7.EE.1-2, 4; 8.EE.7; HS.A-CED.1, 2-4; HS.A-SSE.1, 3* **MC 4.2 Understand patterns and functional thinking** *Essential Elements Included: 3.OA.9; 4.OA.5; 5.OA.3; 7.EE.3; 8.EE.5-6; 8.F.1-3, 4, 5; HS.A-REI.10-12; HS.A-SSE.4; HS.F-BF.1, 2; HS.F-IF.1-3, 4-6; HS.F-LE.1*

A-CED= creating equations; A-SSE = seeing structure in equations BF= building functions; CC= counting & cardinality; EE = expressions & equations; F-BF = basic fractions; F-IF = interpreting functions; G = geometry; G-GMD=geometric measurement & dimension; G-GPE = general properties & equations: MD= measurement & data; NBT= numbers and operations in base ten; N-CN=complex number system; NF= numbers & operations - fractions; N-RN=real number system; NS= number systems; N-Q= number & quantity; OA = operations & algebraic thinking; RP = ratios & proportional relationships; S-IC- statistics & probability - making inferences/justifying conclusions; S-ID=statistics & probability – interpreting categorical & quantitative data: SP = statistics & probability



Tool # 2 - Educator Collaboration Plan:

This plan is a tool that can be utilized to prepare students and their paraprofessionals for fuller participation in general education classes and an increased communication expectation.

Remember - If communication is planned for, it is much more likely to happen.

Keep the student's Speech Pathologist in the loop so he/she can support and participate in these collaboration efforts.

Suggested Use of this tool:

Meet with the general education teacher once a week (maybe the Thursday before) and identify what concepts he/she will be covering the following week.

1. Fill in the first box (Monday through Friday) with the gen. ed. class lesson plan concepts. (See Sample)

2. Discuss Common Core State Standards (CCSS) being covered. Fill in box two. (See Sample)

3. Communication Plan: Identify the concepts and key words that will be covered in each lesson and identify what you want the student to be able to communicate in class. (See Sample)

Discuss with gen. ed. teacher which concepts student needs to answer during class. Identify (for example) two specific questions he/she will ask the student so the teacher knows ahead of time. If the plan is that the student needs to answer two questions during class every day and the questions are determined ahead of time (so the answers can be made available for the student to use) then expecting student participation becomes second nature.

Talker: preprogram it and allow student to practice ahead of time.
Pictures: prepare the pictures prior to class and practice.
Switches: program choices ahead of time and practice.

4. Identify what accommodations are listed in IEP to be used in the educational setting and make sure the student has them available. (See Sample)

5. Data Collection: Para collects data on the concepts. This can be a plus or minus per questions or item in this section. (See Sample)

6. Para or student brings an extra copy of the plan at the beginning of class on Monday. Para keeps the other copy as a working copy for the week. The copy needs to be brought back to you (special education teacher) so that you are aware of both the success and have data to work with. You will also be able to

see where the student excels or may be struggling. Share this data with the student's Speech Pathologist so he/she is aware of progress and possible problems.

7. Notes section allows Para to identify anything that needs to be brought to your attention. For example, student was distracted, or ill, or something interfered with the lesson getting finished. Para: Don't be afraid to remind the teacher in case he/she forgets to ask a question (even after the class has ended) rather than "just skipping it". Students need to be able to demonstrate their competence and it is not ok to have lower expectations for some students than others.

Educator Collaboration Plan

Name:_____ Week Of: _____

Gen. Ed. Contact:_____

Subject: _____

Gen Ed. Concepts Planned:	**CCSS Addressed:**	**Communication Plan:**
Mon.		Mon.
Tues.		Tues.
Wed.		Wed
Thurs.		Thurs
Fri.		Fri.

Accommodations in IEP:	***Data* Collection:**	**Notes:**
	Mon. _____	
	Tues._____	
	Wed._____	
	Thurs._____	
	Fri._____	

Educator Collaboration Plan Name: ____Sample_____ Week Of: Oct. 7 to 11, 2013

Gen. Ed. Contact: __Mrs. Jones_____ Subject: ____Math_____

Gen Ed. Concepts Planned:

Mon. Fractions – whole, half, quarter

Tues. Fractions – quarters, thirds
1/3, 2/3, 3/3
1/4, 2/4, 3/4, 4/4

Wed. Halves, quarters, thirds review

Thurs. Fractions project (demonstrate understanding of "equal parts" of a whole

Fri. Quiz on whole, halves, thirds, & quarters

CCSS Addressed:

1.G.3 Partition circles and rectangles into two and four equal shares using the words halves, fourths, and quarters.

Communication Plan: Pre-program Alpha Talker daily before class (allow student to practice before class).

Mon.
"That is a whole" "whole"
"That is a half" "one-half"
That is a quarter" "one-quarter"

Tues. " That is" "One-third" "two-thirds" "whole"
"One-forth" "one-half" "three-quarters"

Wed. Same as Mon and Tues

Thurs. "I have two fractions in my demonstration."
"One half, and half of that is one fourth."

Fri. Use words from Mon. and Tuesday for Quiz.

Accommodations in IEP:

Alpha Talker is communication mode and requires that specific terms and sentences are programmed into the device prior to class.
Para will accompany student to class and will be responsible to pre-program Talker with two specific answers according to the Collaboration Plan.
Data will be collected on comm. performance and accuracy by Para.

***Data* Collection:**

Mon. whole___ half ___
quarter____

Tues. whole___ half___ 1/4___
1/3___ 2/3___ 3/4___

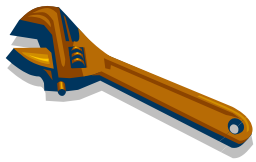
Wed. whole___ half___ 1/4___
1/3___ 2/3___ 3/4___

Thurs. half___ 1/4___
Used both sentences in demo ___

Fri. whole___ half___ 1/4___
1/3___ 2/3___ 3/4___

Notes:

Quiz (Friday) may need to be taken in an area where other students cannot hear the answers.
Para writes student's answers and gen. ed. teacher corrects quiz.



Tool # 4 - Resources

A Few Communication Resources (See also Resources at end of each grade)

1. http://www.designtolearn.com: A good site for introducing communication systems—knowing which ones to use, etc.

2. http://www.alltogetherwecan.com/2008/06/02/ablenet-how-to-videos-step-by-step-with-levels/: A set of videos on how to set up communication systems

3. http://www2.edc.org/NCIP/tour/Resources_PictureSym.html: A good overview of how to set up picture communication systems.

4. http://www.pdictionary.com: A large, easily searchable library of various pictures for instruction. This website may be used for students of various communication levels.

5. http://www.tsbvi.edu/component/content/article/53/1116-tactile-symbols-directory-to-standard-tactile-symbol-list: From Texas School for the Blind and Visually Impaired. This site offers information on developing and using tactile symbols.

6. http://bookbuilder.cast.org/: From cast.org—a free resource that allows you or your students to build books online. It provides text to speech and animation for the books so your students can listen to and watch the book. Can also access books others have written. Great if you are creating a modified version of a grade level text.

7. http://aex.intellitools.com/: Collection of free IntelliKeys activities posted by other teachers.

8. http://teachinglearnerswithmultipleneeds.blogspot.com/2008/02/free-boardmaker-boards-and-activities.html: Collection of free Boardmaker boards. Excellent if you already have Boardmaker. Not all of the links work though.

9. http://zacbrowser.com/: An internet engine designed for children with autism.

Name_____School Term_____ STANDARD EE.2.OA.3

Tool # 3 - I Can Statements Checklist

Grade 2 Math "I Can" Statements ☑Checklist

Instructions: These checklists are meant to provide a visual to record progress toward Common Core Standard Skills.

Domain: Operations and Algebraic Thinking	**Cluster: Work with equal groups of objects to gain foundations for multiplication**	**Standard: EE.2.OA.3**										
I can make two groups of two.	**Date**											
	DATA											
I can separate objects into two groups.	**Date**											
	DATA											
I can equally distribute even numbers of objects between two groups.	**Date**											
	DATA											
I can determine that a quantity of objects is even or odd by separating them into two groups.	**Date**											
	DATA											

Name_____Grade_____School Term_____ STANDARD:

"I Can" Statements ☑Checklist

Instructions: These checklists are meant to provide a visual to record progress toward Common Core Standard Skills.

Strand:	Cluster:	Standard:										
	Date											
	DATA											
	Date											
	DATA											
	Date											
	DATA											
	Date											
	DATA											
	Date											
	DATA											

Name_____**Grade**_____**School Term**_____ **STANDARD:**

	Date										
	DATA										
	Date										
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	Date										
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	Date										
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	Date										
	DATA										
	Date										
	DATA										

Grade 6 Math **6.RP.1 Element Card**

Domain: **Ratios and Proportional Relationships**

Cluster: **Understand ratio concepts and use ratio reasoning to solve problems**

Standard 6.RP.1: Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. For example, "The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak." "For every vote candidate A received, candidate C received nearly three votes."	**Essential Element EE.6.RP.1**: Demonstrate a simple ratio relationship.

Grade 5 Essential Element EE.5.NF.1: • Identify models of halves (1/2, 2/2) and fourths (1/4, 2/4, 3/4, 4/4). **Grade 5 Essential Element EE.5.NF.2:** • Identify models of thirds (1/3. 2/3, 3/3) and tenths (1/10, 2/10, 3/10, 4/10, 5/10, 6/10, 7/10, 8/10, 9/10, 10/10).	**Grade 7 Essential Element EE.7.G.1:** • Match two similar geometric shapes that are proportional in size and in the same orientation.
I Can Statements: • I can identify a one-to-one relationship. • I can complete a pattern given a simple ratio. • I can demonstrate a simple ratio relationship. • I can use a ratio to describe a relationship using numbers and objects.	
Key Vocabulary: • ratio	**Supports (specific to student):** (e.g., assistive technology, communication system, visual aids, templates, active board, highlighters, graphic organizers, task analysis, manipulatives, real world materials, modeling)
Instructional Examples: • Touch each object as teacher counts. • When sorting mail in the main office, place one copy of the school newsletter in each teacher's mailbox. • Given a stack of napkins, give a napkin to each classmate. • Give a ratio of two-to-one, complete a AABAABAAB pattern (e.g., jump, jump, clap; jump, jump, clap). • Take two steps on a number line each time the teacher says "step." • After the teacher explains what materials each group needs, use an AAC to tell another student to get two cups for one table. • Give a pen and a pencil to each classmate. • Given the quantity of materials available and the number of groups who will conduct a science experiment, use a ratio relationship to describe how much each group will receive.	

Domain: **Ratios and Proportional Relationships**

Cluster: **Understand ratio concepts and use ratio reasoning to solve problems**

- Compare the number of male students to female students.
- While preparing a recipe, fill in a ratio of flour to sugar (e.g., one cup of sugar to four cups of flour.)
- Given an even number of red and twice as many green beads, identify the ratio of green beads compared to red beads.

Real World Connections:

- Sporting Events (Wins/Losses)
- Mixing Simple Salad Dressings

Resources:

- How to Use M&M's to Teach Ratios http://www.ehow.com/how_8517061_use-mms-teach-ratios.html
- Ratio Worksheets for Teachers http://www.math-aids.com/Ratios/
- Ratios Lesson Plan http://mathlessons.about.com/od/sixthgradelessons/a/Lesson-Plan-Ratios.htm
- Interactive Internet Ratio Relationships Activity http://math.rice.edu/~lanius/proportions/index.html
- Learn Zillion http://learnzillion.com/lessons

Grade 6 Math **6.RP.2-3 Element Card**

Domain: **Ratios and Proportional Relationships**

Cluster: **Understand ratio concepts and use ratio reasoning to solve problems**

Standard 6.RP.2: Understand the concept of a unit rate *a/b* associated with a ratio *a:b* with $b \neq 0$, and use rate language in the context of a ratio relationship. *For example, "This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is 3/4 cup of flour for each cup of sugar." "We paid $75 for 15 hamburgers, which is a rate of $5 per hamburger.* (Expectations for unit rates in this grade are limited to non-complex fractions.) **Standard 6.RP.3.** Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. a. Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios. *b.* Solve unit rate problems including those involving unit pricing and constant speed. *For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?* c. Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent. d. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.	**Essential Element EE.6.RP.2-3**: Not Applicable

Grade 5 Essential Element: Not Applicable	**Grade 7 Essential Element:** Not Applicable
I Can Statements:	
Key Vocabulary:	**Supports (specific to student):** (e.g., assistive technology, communication system, visual aids, templates, active board, highlighters, graphic organizers, task analysis, manipulatives, real world materials, modeling)
Instructional Examples:	
Real World Connections:	
Resources:	

Grade 6 Math **6.NS.1 Element Card**

Domain: **The Number System**

Cluster: **Apply and extend previous understandings of multiplication and division to divide fractions by fractions**

Standard 6.NS.1: Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. For example, create a story context for (2/3) ÷ (3/4), and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain the (2/3) ÷ (3/4) = 8/9 because 3/4 of 8/9 is 2/3. (In general, (a/b) ÷ (c/d) = ad/bc.) How much chocolate will each person get if 3 people share ½ lb. of chocolate equally? How many ¾ cup servings are in 2/3 of a cup of yogurt? How wide is a rectangular strip of land with length ¾ mi and area ½ square mi?	**Essential Element EE.6.NS.1**: Compare the relationships between two unit fractions.

Grade 5 Essential Element EE.5.NBT.3: • Compare whole numbers up to 100 using symbols (<, >, =). **Grade 5 Essential Element EE.5.NF.1:** • Identify models of halves (1/2, 2/2) and fourths (1/4, 2/4, 3/4, 4/4). **Grade 5 Essential Element EE.5.NF.2:** • Identify models of thirds (1/3. 2/3, 3/3) and tenths (1/10, 2/10, 3/10, 4/10, 5/10, 6/10, 7/10, 8/10, 9/10, 10/10).	**Grade 7 Essential Element EE.7.RP.1–3:** • Use a ratio to model or describe a relationship.
I Can Statements: • I can distinguish between more or less. • I can demonstrate an amount of 1/2. • I can compare the relationships between two unit fractions. • I can compare the relationships between the three unit fractions (1/2, 1/4, 1/8).	
Key Vocabulary: • unit fraction • symmetrical object • halves • 1/8, ¼, ½ • fourths • whole	**Supports (specific to student):** (e.g., assistive technology, communication system, visual aids, templates, active board, highlighters, graphic organizers, task analysis, manipulatives, real world materials, modeling)

Grade 6 Math **6.NS.1 Element Card**

Domain: **The Number System**

Cluster: **Apply and extend previous understandings of multiplication and division to divide fractions by fractions**

Instructional Examples:

- Given a picture of a familiar symmetrical object cut in half, combine both halves to make a whole.
- Given two groups of objects with significantly different amounts (three vs. 10), determine which group has more or less.
- Shown a glass that is full and a glass that is 1/2 (half) full, select the half-full glass.
- Given a whole and a half, identify the half (e.g., a whole or half sandwich).
- Shade a shape to show 1/2.
- Fold one piece of paper in half to show two halves in every one whole.
- Split an even-numbered group of objects into two equal groups to show one half of the group; then split each group again to show fourths of the whole; and split each group again to show eighths of the whole.
- When given a group of even-numbered objects that represents 1/2 and 1/4, determine which set is more or less.
- Given two measuring cups of 1/4 and 1/8 full of water, compare the amounts in each of the measuring cups to a whole cup. Which is more?
- Given two measuring cups of 1/2 and 1/4 full of sand, compare the amounts in each of the measuring cups to a whole cup. Which is more?
- Using circle shaped fraction puzzles, compare a 1/2, 1/4, and 1/8 to determine which is greater.
- Given pictorial representations of shaded pictures and/or fraction bars, compare fractions to determine which is a smaller or lesser amount.
- Given three measuring cups filled to 1/2, 1/4, and 1/8 with water, compare fractional amounts to determine which is greater.

Real World Connections:

- Sale discounts
- Pizza slices (How much did each person eat?)
- Time

Resources:

- Georgia Department of Education Comprehensive Unit on Fractions https://www.georgiastandards.org/Common-Core/Common%20Core%20Frameworks/CCGPS_Math_3_Unit5FrameworkSE.pdf
- Pearson Fractions http://www.pearsonhighered.com/beckmann3einfo/assets/pdf/Beckmann_Ch02.pdf
- MSTAR Comparing Fractions http://www.pflugervilleisd.net/curriculum/math/documents/EQF_L3_LessonPlan.pdf
- BBC Comparing Fractions http://www.bbc.co.uk/skillswise/factsheet/ma17frac-l1-f-comparing-fractions
- You Tube Comparing Fractions http://www.youtube.com/watch?v=uixCejiiaCQ
- High Roller Game http://indulgy.com/post/XwHsL2PLC1/comparing-fractions-would-be-an-awesome-center#/do/page/1
- Comparing Fractions with Mrs. B http://buzzingwithmsb.blogspot.com/search/label/Foldable
- Learn Zillion http://learnzillion.com/lessons

Grade 6 Math **6.NS.2 Element Card**

Domain: **The Number System**

Cluster: **Compute fluently with multi-digit numbers and find common factors and multiples**

Standard 6.NS.2: Fluently divide multi-digit numbers using the standard algorithm.	**Essential Element EE.6.NS.2**: Apply the concept of fair share and equal shares to divide.

Grade 5 Essential Element EE.5.NBT.6–7: • Illustrate the concept of division using fair and equal shares.	**Grade 7 Essential Element EE.7.RP.1–3:** • Use a ratio to model or describe a relationship.

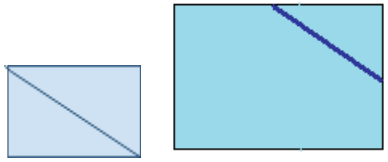
I Can Statements:

- I can replicate equal sets.
- I can identify the concept of division using fair and equal shares.
- I can apply the concept of fair share and equal shares to divide.
- I can solve a division problem using the concept of equal shares.

Key Vocabulary: • fair share • equal share • replicate • divide	**Supports (specific to student):** (e.g., assistive technology, communication system, visual aids, templates, active board, highlighters, graphic organizers, task analysis, manipulatives, real world materials, modeling)

Instructional Examples:

- Given a model, place five different colors in equal sets.
- Given a model, replicate equal sets using rings and pattern blocks.
- Given Ziploc baggies with an equal number of pencils in them, say the number of baggies and the number of pencils in each bag.
- Given a set of books, divide them into two buckets.
- Distribute cards in a card game giving each student a fair share.
- Given a paper folded in half, identify whether they are equal shares.

o 

- Divide 10 one dollar bills into two fair shares (e.g., “If I find 10 dollars and I divide it equally with someone, how much do we each get?”).
- Divide students in the classroom into two equal teams.
- Divide construction paper equally among classmates.
- When planting seeds for a science experiment, divide the seeds into 10 equal shares.

Grade 6 Math **6.NS.2 Element Card**

Domain: **The Number System**

Cluster: **Compute fluently with multi-digit numbers and find common factors and multiples**

- When planting seeds for a science experiment, divide the seeds into equal shares.
- Divide students into four equal groups for a sports tournament.
- Given a group of objects, determine what number to give each classmate to create equal shares.
- Given a real-life division problem, solve the problem using manipulatives.

Real World Connections:

- Share treats equally amongst friends.
- Take turns playing with media for regulated time periods.

Resources:

- Math is Fun Interactive for Dividing Marbles http://www.mathsisfun.com/definitions/division.html
- Pizza = Fractions Any Way You Slice It http://www.learnnc.org/lp/pages/3969
- Mrs. Jump's Class: Pirate Fraction Treasure Activity http://mrsjumpsclass.blogspot.com/2011_05_01_archive.html
- Fair Shares http://pbskids.org/curiousgeorge/busyday/dogs/
- Learn Zillion http://learnzillion.com/lessons

Grade 6 Math **6.NS.3 Element Card**

Domain: **The Number System**

Cluster: **Compute fluently with multi-digit numbers and find common factors and multiples**

Standard 6.NS.3: Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.	**Essential Element EE.6.NS.3**: Solve two-factor multiplication problems with products up to 50 using concrete objects and/or a calculator.

Grade 5 Essential Element EE.5.NBT.5: • Multiply whole numbers up to 5 × 5.	**Grade 7 Essential Element EE.7.NS.2a:** • Solve multiplication problems with products to 100.

I Can Statements:

- I can identify a group of a given quantity.
- I can solve repeated addition problems where the addends are the same (i.e., 5 + 5 + 5 = 15 is equal to three groups of five) using concrete manipulatives and/or a calculator.
- I can solve two factor multiplication problems with products up to 50 using concrete objects and/or calculators.
- I can solve multiplication problems with whole number products to 50 using numerical representations.

Key Vocabulary: • factor • repeated pattern • algorithms • subitize • product • numerical form	**Supports (specific to student):** (e.g., assistive technology, communication system, visual aids, templates, active board, highlighters, graphic organizers, task analysis, manipulatives, real world materials, modeling)

Instructional Examples:

- When shown a repeating pattern of three objects, three objects, three objects, tell the teacher how many objects are in the repeated pattern.
- Given a set number of sounds, no greater than three, identify the quantity of sounds heard (e.g., indicating three dots or the number three). Do this twice and identify if the number of sounds are the same or different as the first round.
- Subitize sets of four (e.g., using a die).
- Given a group of objects with no greater than three items, identify how many are in the group that matches the teacher's handheld numeric symbol (e.g., group of two, group of one, group of three - match to the numbers two, one, and three).
- Before starting an art project, gather two pieces each of five different colored papers and describe how many total pieces of paper are required.
- Given a picture of three groups of three pencils, represent and solve the repeated addition problem.
- Given a story problem, find the sum of a repeated addition problem using objects or their representations (e.g., If I have two rows of desks and three desks in each row how many desks will I have? If I babysat for three days and earned four dollars each day how much money would I make? [Given play money as a manipulative]).
- Given numbers paired with concrete representations, select the correct answer.
- Given a 100s board, show 3 x 10, three sets of 10, and state the product.
- Given a set of manipulatives, make three groups of three and then find the product.

Grade 6 Math **6.NS.3 Element Card**

Domain: **The Number System**

Cluster: **Compute fluently with multi-digit numbers and find common factors and multiples**

- Given a story problem, find the product and represent it numerically (e.g., If I have three shirts and two pair of paints how many outfits can one make? If I have five rows of desks and 10 desks in each row, how many desks will I have? If I babysat for five days and earned 10 dollars each day how much money would I make?).
- Find the product of whole numbers to 20 via multiple algorithms (e.g., different ways to get to 20 = 10 x 2, 2 x 10, 10 + 10 or 5 + 5 + 5 + 5).
- Given a computer program with multiplication problems, find the product.
- Given a set of multiplication problems in numerical form, find the product.

Real World Connections:

- Use your phone calculator to calculate how much it would cost to buy multiple units of one item (ex. 5 boxes of cereal at $3 a box).

Resources:

- Multiplication Fact Game http://mathcoachscorner.blogspot.ca/2013/03/multiplication-fact-game.html
- Speed Math Freebie http://www.teacherspayteachers.com/Product/Speed-Math-781509
- Interactive Multiplication Fact Games http://www.multiplication.com/games
- Fun 4 the Brain Multiplication Fact Games http://www.fun4thebrain.com/mult.html
- Learn Zillion http://learnzillion.com/lessons

Grade 6 Math **6.NS.4 Element Card**

Domain: **The Number System**

Cluster: **Compute fluently with multi-digit numbers and find common factors and multiples**

Standard 6.NS.4: Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. *For example, express 36 + 8 as 4(9 + 2).*	**Essential Element EE.6.NS.4**: Not Applicable

Grade 5 Essential Element: Not Applicable	**Grade 7 Essential Element:** Not Applicable
I Can Statements:	
Key Vocabulary:	**Supports (specific to student):** (e.g., assistive technology, communication system, visual aids, templates, active board, highlighters, graphic organizers, task analysis, manipulatives, real world materials, modeling)
Instructional Examples:	
Real World Connections:	
Resources:	

Grade 6 Math **6.NS.5-8 Element Card**

Domain: **The Number System**

Cluster: **Apply and extend previous understandings of numbers to the system of rational numbers**

Standard 6.NS.5: Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation. **Standard 6.NS.6:** Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates. a. Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g., –(–3) = 3, and that 0 is its own opposite. b. Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes. c. Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane. **Standard 6.NS.7:** Understand ordering and absolute value of rational numbers. *a.* Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. *For example, interpret –3 > –7 as a statement that –3 is located to the right of –7 on a number line oriented from left to right.* *b.* Write, interpret, and explain statements of order for rational numbers in real-world contexts. *For example, write –3° C > –7° C to express the fact that –3°C is warmer than –7°C.* *c.* Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. *For example, for*	**Essential Element EE.6.NS.5-8**: Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero).

an account balance of –30 dollars, write |–30| = 30 to describe the size of the debt in dollars.

d. Distinguish comparisons of absolute value from statements about order. *For example, recognize that an account balance less than –30 dollars represents a debt greater than 30 dollars.*

Standard 6.NS.8: Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.

Grade 5 Essential Element EE.5.OA.3:
- Identify and extend numerical patterns.

Grade 5 Essential Element EE.5.NBT.1:
- Compare numbers up to 99 using base ten models.

Grade 5 Essential Element EE.5.NBT.3:
- Compare whole numbers up to 100 using symbols (<, >, =).

Grade 7 Essential Element EE.7.NS.1:
- Add fractions with like denominators (halves, thirds, fourths, and tenths) with sums less than or equal to one.

I Can Statements:
- I can identify which is greater than and less than using fewer than 10.
- I can order positive numbers from least to greatest.
- I can understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero).
- I can apply positive and negative numbers to a real-world context from greater than positive 10 and less than negative 10.

Key Vocabulary:
- greater than
- less than
- positive numbers
- thermometer
- checkbook register
- negative numbers

Supports (specific to student): (e.g., assistive technology, communication system, visual aids, templates, active board, highlighters, graphic organizers, task analysis, manipulatives, real world materials, modeling)

Grade 6 Math **6.NS.5-8 Element Card**

Domain: **The Number System**

Cluster: **Apply and extend previous understandings of numbers to the system of rational numbers**

Instructional Examples:

- Given two temperatures above zero, indicate which is greater.
- On a number line, which number is closer to zero: three or five?
- Given a representation of a thermometer, indicate which direction implies a greater temperature.
- Farmer John has five cows and nine pigs. Are there more cows or pigs?
- Joe has three marbles, Frank has six. Who has more?
- In a science experiment growing plants, determine how many plants have lived and how many have died to determine if more lived or died.
- Given two sets of manipulatives, identify which has the greater amount or which has the lesser amount.
- Given temperatures from three seasons put them in order from coldest to hottest.
- Look at three checkbook registers with positive balances and order the balances from least to greatest.
- Sequence positive numbers correctly on a number line (e.g., temperatures).
- Given three temperatures above zero, put them in order from coldest to hottest.
- Look at a bank statement/checkbook register and tell if there is a positive or negative balance (do you have any money or do you owe the bank money?).
- Look at the records (wins/losses) of three baseball teams (positive numbers to indicate number of wins and negative numbers to indicate number of losses) and then rank the teams in order from the greatest number of wins/least amount of losses.
- Given two temperatures on two thermometers, one positive and one negative, determine which temperature is the coldest.
- Given a number line and asked to show the number that is opposite of 5, select -5.
- Given three bank statements, order the statement balances from least to greatest.
- When given a thermometer reading -5 degrees, tell how much the temperature will have to rise to get to 15 degrees?
- Given three negative and positive temperatures on three thermometers, order the temperatures from least to greatest (e.g.,-15, 0, 15).

Real World Connections:

- Understand temperatures and how to dress accordingly.
- Understand the primary concept about having money to spend or owing your parents money.

Resources:

- Interactive Thermometer http://www.mathsisfun.com/measure/thermometer.html
- Brain Pop: Background Information and Activities http://www.brainpopjr.com/science/weather/temperature/grownups.weml
- Positive and Negative Number Hopscotch http://learningideasgradesk-8.blogspot.com/2012/05/fun-positive-and-negative-numbers.html
- A Positive Approach to Teaching Negative Numbers http://www.scholastic.com/teachers/top-teaching/2012/09/positive-approach-teaching-negative-numbers
- Motion Math Zoom App https://itunes.apple.com/us/app/motion-math-zoom/id451793073?mt=8
- Learn Zillion http://learnzillion.com/lessons

Grade 6 Math **6.NS.5-8 Element Card**

Domain: **The Number System**

Cluster: **Apply and extend previous understandings of numbers to the system of rational numbers**

Grade 6 Math **6.EE.1-2 Element Card**

Domain: **Expressions and Equations**

Cluster: **Apply and extend previous understandings of arithmetic to algebraic expressions**

Standard 6.EE.1: Write and evaluate numerical expressions involving whole-number exponents. **Standard 6.EE.2:** Write, read, and evaluate expressions in which letters stand for numbers. *a.* Write expressions that record operations with numbers and with letters standing for numbers. *For example, express the calculation "Subtract* y *from 5" as 5 –* y. b. Identify parts of an expression using mathematical terms (*sum, term, product, factor, quotient, coefficient*); view one or more parts of an expression as a single entity. *For example, describe the expression 2(8 + 7) as a product of two factors; view (8 + 7) as both a single entity and a sum of two terms.* c. Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). *For example, use the formulas* $V = s^3$ *and* $A = 6s^2$ *to find the volume and surface area of a cube with sides of length* s *= 1/2.*	**Essential Element EE.6.EE.1-2**: Identify equivalent number sentences.

Grade 5 Essential Element EE.5.NBT.2: • Use the number of zeros in numbers that are powers of 10 to determine which values are equal, greater than, or less than. **Grade 5 Essential Element EE.5.NBT.3**: • Compare whole numbers up to 100 using symbols (<, >, =).	**Grade 7 Essential Element EE.7.EE.1:** • Use the properties of operations as strategies to demonstrate that expressions are equivalent.

I Can Statements:

- I can identify math symbol "=" as meaning equal to.
- I can match a number sentence with the correct picture representation.
- I can identify equivalent number sentences.
- I can generate (verbal, written, modeled) a two-step number sentence using appropriate numbers and symbols.

Grade 6 Math **6.EE.1-2 Element Card**

Domain: **Expressions and Equations**

Cluster: **Apply and extend previous understandings of arithmetic to algebraic expressions**

Key Vocabulary:	**Supports (specific to student):** (e.g., assistive technology, communication system, visual aids, templates, active board, highlighters, graphic organizers, task analysis, manipulatives, real world materials, modeling)
• equivalent • number sentence • numerical equivalent • whole number • symbols (+, -, x, ÷, =)	

Instructional Examples:

- Given picture representations of two equal groups of objects with an equal sign between, student responds that they are the same.
- Indicate the symbol in a number sentence.
- Given a picture and a correct and incorrect number sentence, choose the one that is correct.
- Given a picture showing a single addition problem, identify correct number sentence.
- Given a number problem, select from choices an equivalent problem (e.g., 1 + 3 has the same result as 2 + 2).
- Given a word problem, identify the numerical equivalent (e.g. "Teacher places a group of three pencils and a group of four pencils to the left of student. Teacher then places a second group of five pencils and two pencils to the right of the student and asks, "Does this group of pencils have the same amount as the other group of pencils?" (3 + 4 = 5 + 2).
- Given a word problem, identify the numerical equivalent (e.g. "John has one pencil). He is given five more. "How many pencils does he have?" Student identifies 1 + 5 = as an equivalent to the statement.).
- Given a two-step word problem, identify the numerical equivalent (e.g. "Trudy has three cakes. She was given one more. Frank has two cakes. Show who has the greater number of cakes." (3 + 1 > 2), (3 + 1 = 4, 4 > 2).
- Given a two-step word problem, identify the numerical equivalent (e.g., "John has two apples, Mary has three. John ate one apple. How many apples are left?" Student produces the number sentence (2 + 3 – 1 =) or (2 – 1 + 3 =).

Real World Connections:

- Concession Sales (You have $5 to spend. You can by one popcorn and one pop for $5 or you can buy 2 candies and 1 pop for $5.)
- Daily Calorie Allotments

Resources:

- Skittle Riddles http://www.amazon.com/Skittles-bite-size-candies-riddles/dp/0439318440/?ref=pd_sim_b_12
- TpT: Candy Math and Equivalent Number Sentences http://www.teacherspayteachers.com/Product/Candy-Math-Number-Sentences-and-Equivalent-Sets-132629
- TpT: Touchdown Number Sentences with QR Codes http://www.teacherspayteachers.com/Product/Touchdown-Number-Sentences-with-QR-Codes-526746
- The Lesson Plan Diva: Balanced Equations http://www.lessonplandiva.com/2013/03/blooming-into-spring-contractions.html
- Writing Equivalent Number Sentences http://www.greatschools.org/worksheets-activities/5656-writing-equivalent-number-sentences.gs
- Learn Zillion http://learnzillion.com/lessons

Grade 6 Math **6.EE.1-2 Element Card**

Domain: **Expressions and Equations**

Cluster: **Apply and extend previous understandings of arithmetic to algebraic expressions**

Grade 6 Math **6.EE.3 Element Card**

Domain: **Expressions and Equations**

Cluster: **Apply and extend previous understandings of arithmetic to algebraic expressions**

Standard 6.EE.3: Apply the properties of operations to generate equivalent expressions. *For example, apply the distributive property to the expression 3(2 + x) to produce the equivalent expression 6 + 3x; apply the distributive property to the expression 24x + 18y to produce the equivalent expression 6(4x + 3y); apply properties of operations to y + y + y to produce the equivalent expression 3y.*	**Essential Element EE.6.EE.3**: Apply the properties of addition to identify equivalent numerical expressions.

Grade 5 Essential Element EE.5.MD.1.c: • Indicate relative value of collections of coins. **Grade 5 Essential Element EE.5.NBT.3:** • Compare whole numbers up to 100 using symbols (<, >, =). **Grade 5 Essential Element EE.5.OA.3:** • Identify and extend numerical patterns.	**Grade 7 Essential Element EE.7.EE.4:** • Use the concept of equality with models to solve one-step addition and subtraction equations.
I Can Statements: • I can match different displays of the same quantity. • I can recognize different displays of the equal quantities. • I can demonstrate understanding of equivalent expressions. • I can solve equivalent expressions to illustrate that they are equivalent.	
Key Vocabulary: • properties of addition • equivalent • numerical expression	**Supports (specific to student):** (e.g., assistive technology, communication system, visual aids, templates, active board, highlighters, graphic organizers, task analysis, manipulatives, real world materials, modeling) •
Instructional Examples: • Match pictures of quantities of objects to their numerical equivalent (e.g., four balls matches to the number 4). • Given a group of three objects, a group of four objects, and a group of seven objects, match to 3 + 4 = 7. • Given a model, create an expression using manipulatives (e.g., three blocks plus two blocks equals five blocks). • Answer yes or no when asked, “Is 2 + 3 equal to 4 + 2?” • Answer yes or no when asked, “Is 2 + 3 equal to 3 + 2?” • Indicate that 2 + 3 is the same as 3 + 2.	

- Fill in the blank to make a true statement: 4 + ___ = 3 + 4.
- Fill in the blank to make a true statement: 3 + 5 = ___ + 3.
- Fill in the blank to make a true statement: 2 + 6 = 6 + ___.

Real World Connections:

- How many of each gender makes up your family compared to families of similar size.

Resources:

- Commutative Property Activity http://www.brainpop.com/math/numbersandoperations/commutativeproperty/preview.weml
- ALEX: Cracker Math – Commutative Property Activity http://alex.state.al.us/lesson_view.php?id=16804
- Smart Exchange Smart Board Activities/Lessons http://exchange.smarttech.com/search.html?q=%22Commutative%20Property%22
- Super Teachers Associative Property Worksheet http://www.superteacherworksheets.com/addition/associative-property-addition.pdf
- Commutative & Associative Anchor Chart http://thegoodlife-lindsay.blogspot.com/
- Learnist: Commutative & Associative of Addition http://learni.st/users/52903/boards/19903-applying-commutative-and-associative-properties-common-core-1-oa-3#/users/52903/boards/19903-applying-commutative-and-associative-properties-common-core-1-oa-3
- Learn Zillion http://learnzillion.com/lessons

Grade 6 Math **6.EE.4 Element Card**

Domain: **Expressions and Equations**

Cluster: **Apply and extend previous understandings of arithmetic to algebraic expressions**

Standard 6.EE.4: Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). *For example, the expressions* y + y + y *and 3*y *are equivalent because they name the same number regardless of which number* y *stands for.*	**Essential Element EE.6.EE.4**: Not Applicable

Grade 5 Essential Element: Not Applicable	**Grade 7 Essential Element:** Not Applicable
I Can Statements:	
Key Vocabulary:	**Supports (specific to student):** (e.g., assistive technology, communication system, visual aids, templates, active board, highlighters, graphic organizers, task analysis, manipulatives, real world materials, modeling)
Instructional Examples:	
Real World Connections:	
Resources:	

Grade 6 Math **6.EE.5-7 Element Card**

Domain: **Expressions and Equations**

Cluster: **Reason about and solve one-variable equations and inequalities**

Standard 6.EE.5: Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true. **Standard 6.EE.6:** Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set. **Standard 6.EE.7:** Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p, q and x are all nonnegative rational numbers.	**Essential Element EE.6.EE.5-7**: Match an equation to a real-world problem in which variables are used to represent numbers.

Grade 5 Essential Element EE.5.MD.4–5: • Determine the volume of a rectangular prism by counting units of measure (unit cubes).	**Grade 7 Essential Element EE.7.EE.1:** • Use the properties of operations as strategies to demonstrate that expressions are equivalent. **Grade 7 Essential Element EE.7.EE.4:** • Use the concept of equality with models to solve one-step addition and subtraction equations.
I Can Statements: • I can identify the letter in a mathematical sentence. • I can determine what is unknown in an equation. • I can match an equation to a real-world problem in which variables are used to represent numbers. • I can use a variable and generate an equivalent equation that represents a real-world problem.	
Key Vocabulary: • equation • variable • symbol • mathematical sentence	**Supports (specific to student):** (e.g., assistive technology, communication system, visual aids, templates, active board, highlighters, graphic organizers, task analysis, manipulatives, real world materials, modeling)

Grade 6 Math **6.EE.5-7 Element Card**

Domain: **Expressions and Equations**

Cluster: **Reason about and solve one-variable equations and inequalities**

Instructional Examples:

- Indicate "X" in the equation when asked.
- Point to or indicate the letter/fixed/variable.
- Indicate the X when asked, "What number do I not know in this equation?
- Tell that X means "how many" in 2 + □ = 5 and insert X in the box.
- After hearing a story problem, indicate what is unknown (the teacher labels that as X).
- Match an equation to this word problem: I know Tommy has three tickets. How many more tickets will he need if he wants to take five friends to a movie? Answer: 3 + X=5.
- Tell that X means "how many" in 2 + □ =5 and insert X in the box.
- Match an equation using X to represent how many Fred has: Fred and June have five apples. June has two. Show me this problem. Answer: 2+X= 5.
- Together Pete and Joe have five candies. Pete has two. How many does Joe have? Show the problem with manipulatives using X to represent the unknown, how would you write the equation using X. Answer: 2 + X = 7.
- Show how to write this equation: two students have apples, one student has five apples, the other student has more apples, and there are 12 apples altogether. How would you write this? Answer 5 + X = 12.
- Arrange symbols and numbers to show this equation: Joe has three cups and Sue has some more cups. If they have eight cups together, how would we write this? Answer: 3+ X = 8.

Real World Connections:

- What time will it be when your movie finishes?
- If you watch 3 (30min) TV shows, how many minutes will you have watched TV?

Resources:

- Learn Zillion (free membership) Number Stories http://learnzillion.com/lessons?utf8=%E2%9C%93&filters%5Bsubject%5D=math&query=story+problems&commit=Search+lessons
- Math Play Ground: Word Problems http://www.mathplayground.com/wordproblems.html
- Have Fun Teaching: Word Problems http://havefunteaching.com/worksheets/math-worksheets/word-problems-worksheets/
- Math Maven's Mysteries http://teacher.scholastic.com/maven/

Grade 6 Math **6.EE.8 Element Card**

Domain: **Expressions and Equations**

Cluster: **Reason about and solve one-variable equations and inequalities**

Standard 6.EE.8: Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real world or mathematical problem. Recognize that inequalities of the form $x > c$ or $x <$ c have infinitely many solutions; represent solutions of such inequalities on number line diagrams.	**Essential Element EE.6.EE.8**: Not Applicable

Grade 5 Essential Element: Not Applicable	**Grade 7 Essential Element:** Not Applicable
I Can Statements:	
Key Vocabulary:	**Supports (specific to student):** (e.g., assistive technology, communication system, visual aids, templates, active board, highlighters, graphic organizers, task analysis, manipulatives, real world materials, modeling)
Instructional Examples: .	
Real World Connections:	
Resources:	

Grade 6 Math **6.EE.9 Element Card**

Domain: **Expressions and Equations**

Cluster: **Represent and analyze quantitative relationships between dependent and independent variables**

Standard 6.EE.9: Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. *For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation d = 65t to represent the relationship between distance and time.*	**Essential Element EE.6.EE.9**: Not Applicable

Grade 5 Essential Element: Not Applicable	**Grade 7 Essential Element:** Not Applicable
I Can Statements:	
Key Vocabulary:	**Supports (specific to student):** (e.g., assistive technology, communication system, visual aids, templates, active board, highlighters, graphic organizers, task analysis, manipulatives, real world materials, modeling)
Instructional Examples:	
Real World Connections:	
Resources:	

Grade 6 Math **6.G.1 Element Card**

Domain: **Geometry**

Cluster: **Solve real-world and mathematical problems involving area, surface area, and volume**

Standard 6.G.1: Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.	**Essential Element EE.6.G.1**: Solve real-world and mathematical problems about area using unit squares.

Grade 5 Essential Element EE.5.MD.4–5: • Determine the volume of a rectangular prism by counting units of measure (unit cubes).	**Grade 7 Essential Element EE.7.G.4:** • Determine the perimeter of a rectangle by adding the measures of the sides. **Grade 7 Essential Element EE.7.G.6:** • Determine the area of a rectangle using the formula for length × width, and confirm the result using tiling or partitioning into unit squares. •
I Can Statements: • I can indicate the inside of a space. • I can determine what is the larger area. • I can demonstrate area. • I can find area.	
Key Vocabulary: • mathematical problem • unit squares • space • cubes • rectangle • area • figure • segment • angle • square	**Supports (specific to student):** (e.g., assistive technology, communication system, visual aids, templates, active board, highlighters, graphic organizers, task analysis, manipulatives, real world materials, modeling)
Instructional Examples: • Point to the inside of a box or frame when asked, “Where is the inside?” • Point around the room or spread arms when asked “Are we inside or outside our classroom?” • Answer yes or no when asked, “Here is a basket. Here is a ball. Put the ball inside the basket. Is the ball inside or outside the basket?” • Fill in the inside of a figure when the difference between the inside and outside is clear. • Tell which figure is larger inside. • Use squares of colored paper to cover their desk or tray on a wheelchair.	

Grade 6 Math **6.G.1 Element Card**

Domain: **Geometry**

Cluster: **Solve real-world and mathematical problems involving area, surface area, and volume**

- Given two representations, identify which has area (e.g. line segment, angle, square).
- Determine how many cubes in a single layer are required to cover the bottom of a box and state the number required.
- Determine how many tiles in a single layer are required to cover a rectangle.

1	1	1
1	1	1
1	1	1

3 + 3 + 3 = 9 tiles

Real World Connections:

- Cut a pan of brownies into equal sizes for 12 people to share.
- Calculate the area needed for an area rug.
- Plant a garden.

Resources:

- Brain Pop: Area Video http://www.brainpopjr.com/math/measurement/area/grownups.weml
- Brain Pop: Area Background and Activities http://www.brainpopjr.com/math/measurement/area/grownups.weml
- Learning About Surface Area and Volume http://www.nnin.org/education-training/k-12-teachers/nanotechnology-curriculum-materials/learning-about-surface-area-and
- Math Playground: Interactive Math Lesson on Area http://www.mathplayground.com/area_perimeter.html
- Learn Zillion http://learnzillion.com/lessons

Grade 6 Math **6.G.2 Element Card**

Domain: **Geometry**

Cluster: **Solve real-world and mathematical problems involving area, surface area, and volume**

Standard 6.G.2: Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas $V = lwh$ and $V = bh$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.	**Essential Element EE.6.G.2**: Solve real-world and mathematical problems about volume using unit cubes.

Grade 5 Essential Element EE.5.MD.4–5: • Determine the volume of a rectangular prism by counting units of measure (unit cubes).	**Grade 7 Essential Element EE.7.G.6:** • Determine the area of a rectangle using the formula for length × width, and confirm the result using tiling or partitioning into unit squares.
I Can Statements: • I can indicate the inside of a space. • I can determine what the larger area is. • I can demonstrate area. • I can find area.	
Key Vocabulary: • mathematical problem • unit squares • space • cubes • rectangle • area • figure • segment • angle • square	**Supports (specific to student):** (e.g., assistive technology, communication system, visual aids, templates, active board, highlighters, graphic organizers, task analysis, manipulatives, real world materials, modeling)
Instructional Examples: • Point to the inside of a box or frame when asked, “Where is the inside?” • Point around the room or spread arms when asked “Are we inside or outside our classroom?” • Answer yes or no when asked, “Here is a basket. Here is a ball. Put the ball inside the basket. Is the ball inside or outside the basket?” • Fill in the inside of a figure when the difference between the inside and outside is clear. • Tell which figure is larger inside. • Use squares of colored paper to cover their desk or tray on a wheelchair. • Given two representations, identify which has area (e.g. line segment, angle, square). • Determine how many cubes in a single layer are required to cover the bottom of a box and state the number required.	

Grade 6 Math **6.G.2 Element Card**

Domain: **Geometry**

Cluster: **Solve real-world and mathematical problems involving area, surface area, and volume**

- Determine how many tiles in a single layer are required to cover a rectangle.

1	1	1
1	1	1
1	1	1

3 + 3 + 3 = 9 tiles

Real World Connections:

- How many ice cubes can your drink hold?

Resources:

- Smart Exchange Volume Lessons http://exchange.smarttech.com/search.html?q=volume&subject=Mathematics&grade=Grade+4&region=en_US
- Lear Zillion: Find the Volume http://learnzillion.com/lessons/1062-find-the-volume-of-a-rectangular-prism-by-filling-it-with-unit-cubes
- Brain Pop: Volume http://www.brainpop.com/educators/community/bp-topic/volume-of-prisms/
- Brain Pop: Measuring Matter http://www.brainpop.com/science/matterandchemistry/measuringmatter/preview.weml
- Education World: Investigating Volume http://www.educationworld.com/a_tsl/archives/06-1/lesson015.shtml
- Learn Zillion http://learnzillion.com/lessons

Grade 6 Math **6.G.3-4 Element Card**

Domain: **Geometry**

Cluster: **Solve real-world and mathematical problems involving area, surface area, and volume**

Standard 6.G.3: Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems. **Standard 6.G.4:** Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.	**Essential Element EE.6.G.3-4**: Not Applicable

Grade 5 Essential Element: Not Applicable	**Grade 7 Essential Element:** Not Applicable
I Can Statements:	
Key Vocabulary:	**Supports (specific to student):** (e.g., assistive technology, communication system, visual aids, templates, active board, highlighters, graphic organizers, task analysis, manipulatives, real world materials, modeling)
Instructional Examples:	
Real World Connections:	
Resources:	

Grade 6 Math **6.SP.1-2 Element Card**

Domain: **Statistics and Probability**

Cluster: **Develop understanding of variability**

Standard 6.SP.1: Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. *For example, "How old am I?" is not a statistical question, but "How old are the students in my school?" is a statistical question because one anticipates variability in students' ages.* **Standard 6.SP.2:** Understand that a set of data collected to answer a statistical question has a distribution, which can be described by its center, spread, and overall shape.	**Essential Element EE.6.SP.1-2**: Display data on a graph or table that shows variability in the data.

Grade 5 Essential Element EE.5.MD.2: • Represent and interpret data on a picture, line plot, or bar graph.	**Grade 7 Essential Element EE.7.SP.1–2:** • Answer a question related to the collected data from an experiment, given a model of data, or from data collected by the student. **Grade 7 Essential Element EE.7.SP.3:** • Compare two sets of data within a single data display such as a picture graph, line plot, or bar graph.
I Can Statements: • I can sort information into categories of same and different. • I can organize data. • I can display data on a graph or table that shows variability of data. • I can collect, display, and describe data on a graph or table.	
Key Vocabulary: • data • graph • table • survey • variance • table	**Supports (specific to student):** (e.g., assistive technology, communication system, visual aids, templates, active board, highlighters, graphic organizers, task analysis, manipulatives, real world materials, modeling)
Instructional Examples: • Given a graphic organizer with three categories of colors identified, sort seven discs of three different colors into the categories and place them in the appropriate place on the graphic organizer. • After charting the weather for a week, identify if today's weather was the same or different than yesterday.	

Grade 6 Math **6.SP.1-2 Element Card**

Domain: **Statistics and Probability**

Cluster: **Develop understanding of variability**

- Given data, sort to determine how many (e.g., how many students have certain number of siblings).
- Survey students in the classroom concerning favorites among three choices and represent responses (e.g., how many pick each of three stories or each of three subjects).
- Given data about the ages of students in the class (e.g., 12, 13, and 14), display data in a table showing the variance in age (e.g., fewest are 12 years old, most are 13 years old).
- Given weather data for the week, display it on a graph to show variance (e.g., five sunny days, three cloudy, two rainy).
- Describe data laid out on a graph showing a distribution of responses. For example, students have different heights, but there are many with similar heights, while some are much taller or shorter.
- Collect weather data and graph to show variance (e.g., five sunny days, three cloudy, two rainy).
- Collect data from a class survey of height and create a table showing the variance in height (e.g., shortest person is 4'6", the tallest person is 5'4").
- Collect data for a classroom experiment and chart height of plants, temperature of soil, etc.

Real World Connections:

- Weather calendar
- Favorite foods graph

Resources:

- Brain Pop: Graphs http://www.brainpopjr.com/search/?keyword=graph
- Brain Pop: Learn About Graphs http://www.brainpop.com/math/dataanalysis/graphs/preview.weml
- Brain Pop: Lessons about Graphs http://www.brainpop.com/educators/community/bp-topic/graphs/
- TpT: Calendar Graphs http://www.teacherspayteachers.com/Product/Calendar-Math-Pack-794107
- Graphing: Conversation Hearts http://helpinglittlehands.blogspot.com/2011/02/conversation-heart-activities.html
- Learn Zillion http://learnzillion.com/lessons

Grade 6 Math **6.SP.3 Element Card**

Domain: **Statistics and Probability**

Cluster: **Develop understanding of variability**

Standard 6.SP.3: Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.	**Essential Element EE.6.SP.3**: Not Applicable

Grade 5 Essential Element: Not Applicable	**Grade 7 Essential Element:** Not Applicable
I Can Statements:	
Key Vocabulary:	**Supports (specific to student):** (e.g., assistive technology, communication system, visual aids, templates, active board, highlighters, graphic organizers, task analysis, manipulatives, real world materials, modeling)
Instructional Examples:	
Real World Connections:	
Resources:	

Grade 6 Math **6.SP.4 Element Card**

Domain: **Statistics and Probability**

Cluster: **Summarize and describe distributions**

Standard 6.SP.4: Display numerical data in plots on a number line, including dot plots, histograms, and box plots.	**Essential Element EE.6.SP.4**: Not Applicable

Grade 5 Essential Element: Not Applicable	**Grade 7 Essential Element:** Not Applicable
I Can Statements:	
Key Vocabulary:	**Supports (specific to student):** (e.g., assistive technology, communication system, visual aids, templates, active board, highlighters, graphic organizers, task analysis, manipulatives, real world materials, modeling)
Instructional Examples:	
Real World Connections:	
Resources:	

Grade 6 Math **6.SP.5 Element Card**

Domain: **Statistics and Probability**

Cluster: **Summarize and describe distributions**

Standard 6.SP.5: Summarize numerical data sets in relation to their context, such as by: a. Reporting the number of observations. b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement. c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered. d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.	**Essential Element EE.6.SP.5**: Summarize data distributions shown in graphs or tables.

Grade 5 Essential Element EE.5.MD.2: • Represent and interpret data on a picture, line plot, or bar graph.	**Grade 7 Essential Element EE.7.SP.3:** • Compare two sets of data within a single data display such as a picture graph, line plot, or bar graph.
I Can Statements: • I can identify which has more or less. • I can use a graph to determine which category has the most. • I can summarize data distributions on a graph or table. • I can summarize the data on a graph or table.	
Key Vocabulary: • graph • table • data distribution	**Supports (specific to student):** (e.g., assistive technology, communication system, visual aids, templates, active board, highlighters, graphic organizers, task analysis, manipulatives, real world materials, modeling)
Instructional Examples: • Given two towers of interlocking cubes, identify which has more or less. • Given two items on a bar graph, identify which has more or less. • Looking at a pictograph of the students' favorite sports teams, identify which is the most preferred team. • Looking at a bar graph on the students' favorite subject in school, identify which is the most preferred subject.	

Grade 6 Math **6.SP.5 Element Card**

Domain: **Statistics and Probability**

Cluster: **Summarize and describe distributions**

- When looking at a table of what students like to eat for lunch, summarize the data in one way (e.g., chicken nuggets has the most; pizza has the least).
- When looking at a graph of temperatures from the week, summarize the data in one way (i.e., three days were above 70 degrees).
- When looking at a graph of temperatures from the week, summarize the data in multiple ways (i.e., three days were above 70 degrees, six days were between 60-70 degrees, and two days were 50-60 degrees).
- When looking at a table of what students like to eat for lunch, summarize the data in multiple ways (i.e., chicken nuggets has the most, pizza has the least).

Real World Connections:

- Look at a graph of "favorite snacks" and plan a snack to bring or prepare for the class.
- Look at a graph of "favorite musicians" and select background music to play in class.

Resources:

- TpT: Summarizing Calendar Graphs http://www.teacherspayteachers.com/Product/Weather-Graphing-for-Kids-with-Autism-615649
- Magic Tree House: Graphing for Gold http://www.mthclassroomadventures.org/pdf/mth-43-lesson-plan-graphing-for-gold.pdf
- Scholastic: Learning All About My Class with Graphs http://www.scholastic.com/teachers/lesson-plan/learning-all-about-me-my-class-graphs
- Learn Zillion http://learnzillion.com/lessons

Grade 6 Resources

EE.6.RP.1: Demonstrate a simple ratio relationship

- How to Use M&M's to Teach Ratios http://www.ehow.com/how_8517061_use-mms-teach-ratios.html
- Ratio Worksheets for Teachers http://www.math-aids.com/Ratios/
- Ratios Lesson Plan http://mathlessons.about.com/od/sixthgradelessons/a/Lesson-Plan-Ratios.htm
- Interactive Internet Ratio Relationships Activity http://math.rice.edu/~lanius/proportions/index.html
- Learn Zillion http://learnzillion.com/lessons

EE.6.NS.1: Compare the relationships between two unit fractions

- Georgia Department of Education Comprehensive Unit on Fractions https://www.georgiastandards.org/Common-Core/Common%20Core%20Frameworks/CCGPS_Math_3_Unit5FrameworkSE.pdf
- Pearson Fractions http://www.pearsonhighered.com/beckmann3einfo/assets/pdf/Beckmann_Ch02.pdf
- MSTAR Comparing Fractions http://www.pflugervilleisd.net/curriculum/math/documents/EQF_L3_LessonPlan.pdf
- BBC Comparing Fractions http://www.bbc.co.uk/skillswise/factsheet/ma17frac-l1-f-comparing-fractions
- You Tube Comparing Fractions http://www.youtube.com/watch?v=uixCejiiaCQ
- High Roller Game http://indulgy.com/post/XwHsL2PLC1/comparing-fractions-would-be-an-awesome-center#/do/page/1
- Comparing Fractions with Mrs. B http://buzzingwithmsb.blogspot.com/search/label/Foldable
- Learn Zillion http://learnzillion.com/lessons

EE.6.NS.2: Apply the concept of fair share and equal shares to divide

- Math is Fun Interactive for Dividing Marbles http://www.mathsisfun.com/definitions/division.html
- Pizza = Fractions Any Way You Slice It http://www.learnnc.org/lp/pages/3969
- Mrs. Jump's Class: Pirate Fraction Treasure Activity http://mrsjumpsclass.blogspot.com/2011_05_01_archive.html
- Fair Shares http://pbskids.org/curiousgeorge/busyday/dogs/
- Learn Zillion http://learnzillion.com/lessons

EE.6.NS.3: Solve two-factor multiplication problems with products up to 50 using concrete objects and/or a calculator

- Multiplication Fact Game http://mathcoachscorner.blogspot.ca/2013/03/multiplication-fact-game.html
- Speed Math Freebie http://www.teacherspayteachers.com/Product/Speed-Math-781509
- Interactive Multiplication Fact Games http://www.multiplication.com/games
- Fun 4 the Brain Multiplication Fact Games http://www.fun4thebrain.com/mult.html
- Learn Zillion http://learnzillion.com/lessons

EE.6.NS.5-8: Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero).

- Interactive Thermometer http://www.mathsisfun.com/measure/thermometer.html
- Brain Pop: Background Information and Activities http://www.brainpopjr.com/science/weather/temperature/grownups.weml
- Positive and Negative Number Hopscotch http://learningideasgradesk-8.blogspot.com/2012/05/fun-positive-and-negative-numbers.html
- A Positive Approach to Teaching Negative Numbers http://www.scholastic.com/teachers/top-teaching/2012/09/positive-approach-teaching-negative-numbers
- Motion Math Zoom App https://itunes.apple.com/us/app/motion-math-zoom/id451793073?mt=8
- Learn Zillion http://learnzillion.com/lessons

EE.6.EE.1-2: Identify equivalent number sentences.

- Skittle Riddles http://www.amazon.com/Skittles-bite-size-candies-riddles/dp/0439318440/?ref=pd_sim_b_12

- TpT: Candy Math and Equivalent Number Sentences http://www.teacherspayteachers.com/Product/Candy-Math-Number-Sentences-and-Equivalent-Sets-132629
- TpT: Touchdown Number Sentences with QR Codes http://www.teacherspayteachers.com/Product/Touchdown-Number-Sentences-with-QR-Codes-526746
- The Lesson Plan Diva: Balanced Equations http://www.lessonplandiva.com/2013/03/blooming-into-spring-contractions.html
- Writing Equivalent Number Sentences http://www.greatschools.org/worksheets-activities/5656-writing-equivalent-number-sentences.gs
- Learn Zillion http://learnzillion.com/lessons

EE.6.EE.3: Apply the properties of addition to identify equivalent numerical expressions.

- Commutative Property Activity http://www.brainpop.com/math/numbersandoperations/commutativeproperty/preview.weml
- ALEX: Cracker Math – Commutative Property Activity http://alex.state.al.us/lesson_view.php?id=16804
- Smart Exchange Smart Board Activities/Lessons http://exchange.smarttech.com/search.html?q=%22Commutative%20Property%22
- Super Teachers Associative Property Worksheet http://www.superteacherworksheets.com/addition/associative-property-addition.pdf
- Commutative & Associative Anchor Chart http://thegoodlife-lindsay.blogspot.com/
- Learnist: Commutative & Associative of Addition http://learni.st/users/52903/boards/19903-applying-commutative-and-associative-properties-common-core-1-oa-3#/users/52903/boards/19903-applying-commutative-and-associative-properties-common-core-1-oa-3
- Learn Zillion http://learnzillion.com/lessons

EE.6.EE.5-7: Match an equation to a real-world problem in which variables are used to represent numbers.

- Learn Zillion (free membership) Number Stories http://learnzillion.com/lessons?utf8=%E2%9C%93&filters%5Bsubject%5D=math&query=story+problems&commit=Search+lessons
- Math Play Ground: Word Problems http://www.mathplayground.com/wordproblems.html
- Have Fun Teaching: Word Problems http://havefunteaching.com/worksheets/math-worksheets/word-problems-worksheets/
- Math Maven's Mysteries http://teacher.scholastic.com/maven/

EE.6.G.1: Solve real-world and mathematical problems about area using unit squares.

- Brain Pop: Area Video http://www.brainpopjr.com/math/measurement/area/grownups.weml
- Brain Pop: Area Background and Activities http://www.brainpopjr.com/math/measurement/area/grownups.weml
- Learning About Surface Area and Volume http://www.nnin.org/education-training/k-12-teachers/nanotechnology-curriculum-materials/learning-about-surface-area-and
- Math Playground: Interactive Math Lesson on Area http://www.mathplayground.com/area_perimeter.html
- Learn Zillion http://learnzillion.com/lessons

EE.6.G.2: Solve real-world and mathematical problems about volume using unit cubes.

- Smart Exchange Volume Lessons http://exchange.smarttech.com/search.html?q=volume&subject=Mathematics&grade=Grade+4&region=en_US
- Lear Zillion: Find the Volume http://learnzillion.com/lessons/1062-find-the-volume-of-a-rectangular-prism-by-filling-it-with-unit-cubes
- Brain Pop: Volume http://www.brainpop.com/educators/community/bp-topic/volume-of-prisms/
- Brain Pop: Measuring Matter http://www.brainpop.com/science/matterandchemistry/measuringmatter/preview.weml
- Education World: Investigating Volume http://www.educationworld.com/a_tsl/archives/06-1/lesson015.shtml
- Learn Zillion http://learnzillion.com/lessons

EE.6.SP.1-2: Display data on a graph or label that shows variability in the data.

- Brain Pop: Graphs http://www.brainpopjr.com/search/?keyword=graph
- Brain Pop: Learn About Graphs http://www.brainpop.com/math/dataanalysis/graphs/preview.weml
- Brain Pop: Lessons about Graphs http://www.brainpop.com/educators/community/bp-topic/graphs/
- TpT: Calendar Graphs http://www.teacherspayteachers.com/Product/Calendar-Math-Pack-794107
- Graphing: Conversation Hearts http://helpinglittlehands.blogspot.com/2011/02/conversation-heart-activities.html
- Learn Zillion http://learnzillion.com/lessons

EE.6.SP.5: Summarize data distributions shown in graphs or tables.

- TpT: Summarizing Calendar Graphs http://www.teacherspayteachers.com/Product/Weather-Graphing-for-Kids-with-Autism-615649
- Magic Tree House: Graphing for Gold http://www.mthclassroomadventures.org/pdf/mth-43-lesson-plan-graphing-for-gold.pdf
- Scholastic: Learning All About My Class with Graphs http://www.scholastic.com/teachers/lesson-plan/learning-all-about-me-my-class-graphs
- Learn Zillion http://learnzillion.com/lessons