

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: One



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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 Learning 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.

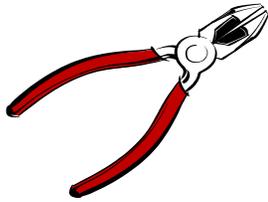
These tools are:

- ✓ 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

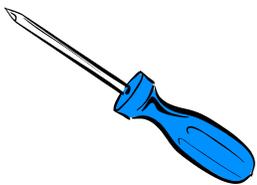
These tools are not:

- ✓ 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.



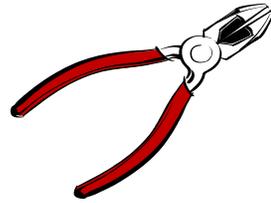
Website Resources - lists of web addresses where a variety of educational ideas can be found.

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.

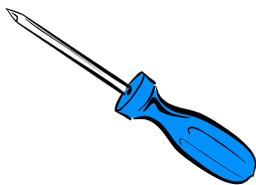
The Essential Elements are highlighted to indicate the importance of their focus.

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.

<p>Claim 1</p>	<p>Number Sense: Students demonstrate increasingly complex understanding of number sense.</p> <p>Conceptual Areas in the Dynamic Learning Map:</p> <p>MC 1.1 Understand number structures (counting, place value, fraction) <i>Essential Elements Included:</i> 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</p> <p>MC 1.2 Compare, compose, and decompose numbers and sets <i>Essential Elements Included:</i> 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</p> <p>MC 1.3 Calculate accurately and efficiently using simple arithmetic operations <i>Essential Elements Included:</i> 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</p>
<p>Claim 2</p>	<p>Geometry: Students demonstrate increasingly complex spatial reasoning and understanding of geometric principles.</p> <p>Conceptual Areas in the Dynamic Learning Map:</p> <p>MC 2.1 Understand and use geometric properties of two- and three-dimensional shapes <i>Essential Elements Included:</i> 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</p> <p>MC 2.2 Solve problems involving area, perimeter, and volume <i>Essential Elements Included:</i> 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</p>
<p>Claim 3</p>	<p>Measurement Data and Analysis: Students demonstrate Increasingly complex understanding of measurement, data, and analytic procedures.</p> <p>Conceptual Areas in the Dynamic Learning Map:</p> <p>MC 3.1 Understand and use measurement principles and units of measure <i>Essential Elements Included:</i> 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</p> <p>MC 3.2 Represent and interpret data displays <i>Essential Elements Included:</i> 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</p>
<p>Claim 4</p>	<p>Algebraic and functional reasoning: Students solve increasingly complex mathematical problems, making productive use of algebra and functions.</p> <p>Conceptual Areas in the Dynamic Learning Map:</p> <p>MC 4.1. Use operations and models to solve problems <i>Essential Elements Included:</i> 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</p> <p>MC 4.2 Understand patterns and functional thinking <i>Essential Elements Included:</i> 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</p>

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

Gen. Ed. Contact: _____

Name: _____ Week Of: _____

Subject: _____

Gen Ed. Concepts Planned:

Mon.

Tues.

Wed.

Thurs.

Fri.

CCSS Addressed:

Communication Plan:

Mon.

Tues.

Wed

Thurs

Fri.

Accommodations in IEP:

Data Collection:

Mon. _____

Tues. _____

Wed. _____

Thurs. _____

Fri. _____

Notes:

Educator Collaboration Plan

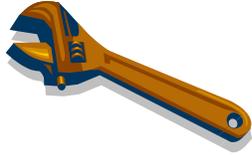
Name: Sample

Week Of: Oct. 7 to 11, 2013

Gen. Ed. Contact: Mrs. Jones

Subject: Math

<p>Gen Ed. Concepts Planned:</p> <p>Mon. Fractions – whole, half, quarter</p> <p>Tues. Fractions – quarters, thirds $1/3, 2/3, 3/3$ $1/4, 2/4, 3/4, 4/4$</p> <p>Wed. Halves, quarters, thirds review</p> <p>Thurs. Fractions project (demonstrate understanding of "equal parts" of a whole)</p> <p>Fri. Quiz on whole, halves, thirds, & quarters</p>	<p>CCSS Addressed:</p> <p>1.G.3 Partition circles and rectangles into two and four equal shares using the words halves, fourths, and quarters.</p>	<p>Communication Plan: Pre-program Alpha Talker daily before class (allow student to practice before class).</p> <p>Mon. "That is a whole" "whole" "That is a half" "one-half" That is a quarter" "one-quarter"</p> <p>Tues. " That is" "One-third" "two-thirds" "whole" "One-fourth" "one-half" "three-quarters"</p> <p>Wed. Same as Mon and Tues</p> <p>Thurs. "I have two fractions in my demonstration." "One half, and half of that is one fourth."</p> <p>Fri. Use words from Mon. and Tuesday for Quiz.</p>
<p>Accommodations in IEP:</p> <p>Alpha Talker is communication mode and requires that specific terms and sentences are programmed into the device prior to class.</p> <p>Para will accompany student to class and will be responsible to pre-program Talker with two specific answers according to the Collaboration Plan.</p> <p>Data will be collected on comm. performance and accuracy by Para.</p>	<p>Data Collection:</p> <p>Mon. whole__ half __ quarter__</p> <p>Tues. whole__ half__ $1/4$__ $1/3$__ $2/3$__ $3/4$__</p> <p>Wed. whole__ half__ $1/4$__ $1/3$__ $2/3$__ $3/4$__</p> <p>Thurs. half__ $1/4$__ Used both sentences in demo __</p> <p>Fri. whole__ half__ $1/4$__ $1/3$__ $2/3$__ $3/4$__</p>	<p>Notes:</p> <p>Quiz (Friday) may need to be taken in an area where other students cannot hear the answers.</p> <p>Para writes student's answers and gen. ed. teacher corrects quiz.</p>



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.



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										

Grade 1 Math

1.OA.1.a Element Card

Domain: Operations and Algebraic Thinking

Cluster: Represent and solve problems involving addition and subtraction

Standard 1.OA.1: Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Essential Element EE.1.OA.1.a: Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), or acting out situations.

Grade K Essential Element EE.K.OA.1:

- Represent addition as “putting together” or subtraction as “taking from” in everyday activities.

Grade 2 Essential Element EE.2.OA.4:

- Use addition to find the total number of objects arranged within equal groups up to a total of 10.

I Can Statements:

- I can use concrete objects to add.
- I can use concrete objects to subtract.
- I can show addition and subtraction using objects, fingers, drawings, or acting out situations.
- I can solve simple addition and subtraction problem using objects, fingers, drawings, or acting out situations.

Key Vocabulary:

- addition
- subtraction
- put together
- take away

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)

- counting bears

Instructional Examples:

- Given two red counting bears and two green counting bears, the student will put them together when asked to add the bears.
- Given a group of five bears, (three red bears and two blue bears), the student will be able to take away the blue bears when asked.
- Have two students go to the front of the room and three more students go to the front of the room when requested. The student will indicate how many are in the front of the room.
- Given a simple equation (e.g., $2+3=5$), the student will use counting bears to solve the problem.

Real World Connections:

- The student will be able to get enough milk for the class at snack time.

Grade 1 Math

1.OA.1.a Element Card

Domain: Operations and Algebraic Thinking

Cluster: Represent and solve problems involving addition and subtraction

Resources:

- <http://illuminations.nctm.org/ActivityDetail.aspx?ID=218>
- <http://exchange.smarttech.com/details.html?id=0ac067b9-72cb-4558-a783-64cdf58c2094>

Grade 1 Math

1.OA.1.b Element Card

Domain: Operations and Algebraic Thinking

Cluster: Represent and solve problems involving addition and subtraction

Standard 1.OA.1: Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Essential Element EE.1.OA.1.b: Recognize two groups that have the same or equal quantity.

Grade K Essential Element EE.K.CC.6:

- Identify whether the number of objects in one group is more or less than (when the quantities are clearly different) or equal to the number of objects in another group.

Grade 2 Essential Element EE.2.NBT.4:

- Compare sets of objects and numbers using appropriate vocabulary (more, less, equal).

I Can Statements:

- I can use items to make a group.
- I can identify if two groups are equal or unequal.
- I can identify two groups that have equal quantity.
- I can create two groups with equal quantity.

Key Vocabulary:

- group
- different
- unequal
- same
- equal

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)

- blocks
- counting bears

Instructional Examples:

- The student will put blocks together to make a group.
- The student is given two groups of blue counting bears; when asked by the teacher, the student will respond that the groups are equal or unequal.
- The student is shown a group of five pencils, a group of two erasers, and a group of two rulers; the student will select the two groups with equal quantities.
- Given counting bears, the student will create a group of four yellow bears and a group of four blue bears.

Real World Connections:

- The student will be able to set the table with an equal number of plates and glasses.

Grade 1 Math

1.OA.1.b Element Card

Domain: Operations and Algebraic Thinking

Cluster: Represent and solve problems involving addition and subtraction

Resources:

- <http://illuminations.nctm.org/ActivityDetail.aspx?ID=218>
- <http://exchange.smarttech.com/details.html?id=0ac067b9-72cb-4558-a783-64cdf58c2094>

Grade 1 Math

1.OA.2 Element Card

Domain: Operations and Algebraic Thinking

Cluster: Represent and solve problems involving addition and subtraction

Standard 1.OA.2: Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Essential Element EE.1.OA.2: Use “putting together” to solve problems with two sets.

Grade K Essential Element EE.K.CC.5:

- Count out up to three objects from a larger set, pairing each object with one and only one number name to tell how many.

Grade 2 Essential Element EE.2.OA.4:

- Use addition to find the total number of objects arranged within equal groups up to a total of 10.

I Can Statements:

- I can identify two sets of manipulatives.
- I can make a set from a given number with manipulatives.
- I can make two sets from certain numbers when given manipulatives.
- I can solve a word problem when given two sets of manipulatives.

Key Vocabulary:

- set
- manipulative

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)

- iPad
- manipulatives
- number stamps

Instructional Examples:

- The student will identify two sets of manipulatives.
- Given manipulatives, the student will make one set of a given number.
- Given manipulatives, the student will make two sets of different amounts.
- Given manipulatives, the student will put together two sets of manipulatives to solve a problem.

Real World Connections:

- The student will be able to solve money problems.
- The student will be able to add and subtract common items.

Grade 1 Math

1.OA.2 Element Card

Domain: Operations and Algebraic Thinking

Cluster: Represent and solve problems involving addition and subtraction

Resources:

- http://www.glencoe.com/sites/common_assets/mathematics/ebook_assets/vmf/VMF-Interface.html

Grade 1 Math

1.OA.3-4 Element Card

Domain: Operations and Algebraic Thinking

Cluster: Understand and apply properties of operations and the relationship between addition and subtraction

<p>Standard 1.OA.3: Apply properties of operations as strategies to add and subtract. (Students need not use formal terms for these properties.) <i>Examples: If $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known. (Commutative property of addition.) To add $2 + 6 + 4$, the second two numbers can be added to make a 10, so $2 + 6 + 4 = 2 + 10 = 12$. (Associative property of addition.)</i></p> <p>Standard 1.OA.4: Understand subtraction as an unknown-addend problem. <i>For example, subtract $10 - 8$ by finding the number that makes 10 when added to 8.</i></p>	<p>Essential Element EE.1.OA.3: Begins in grade 6 (EE.6.EE.3)</p> <p>Essential Element EE.1.OA.4: N/A (See EE.1.NBT.4 and EE.1.NBT.6)</p>
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<p>Grade K Essential Element:</p> <ul style="list-style-type: none">• N/A	<p>Grade 2 Essential Element:</p> <ul style="list-style-type: none">• Begins in grade 6 (EE.6.EE.3)• N/A
<p>I Can Statements:</p>	
<p>Key Vocabulary:</p>	<p>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)</p>
<p>Instructional Examples:</p>	
<p>Real World Connections:</p>	
<p>Resources:</p>	

Grade 1 Math

1.OA.5.a Element Card

Domain: Operations and Algebraic Thinking

Cluster: Add and subtract within 20

Standard 1.OA.5: Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).

Essential Element EE.1.OA.5.a: Use manipulatives or visual representations to indicate the number that results when adding one more.

Grade K Essential Element EE.K.OA.1:

- Represent addition as “putting together” or subtraction as “taking from” in everyday activities.

Grade 2 Essential Element EE.2.OA.4:

- Use addition to find the total number of objects arranged within equal groups up to a total of 10.

I Can Statements:

- I can count to 5.
- I can add one more to 1, 2, or 3 objects.
- I can use concrete objects to add one more.
- I can use concrete objects to add more than one.

Key Vocabulary:

- count
- one more
- add

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)

- counting items

Instructional Examples:

- The student will count 5 pencils.
- The student is given 2 shapes and can add one more upon teacher request.
- Given 6 books, the student can add one more upon teacher request.
- The student is given 8 concrete objects; upon request, the student adds one more object and then counts the total number of objects.

Real World Connections:

- The student will be able to take one more of an item upon request (e.g., “Take one more piece of paper.”).

Resources:

- <http://pbskids.org/curiousgeorge/busyday/allie/>

Grade 1 Math

1.OA.5.b Element Card

Domain: Operations and Algebraic Thinking

Cluster: Add and subtract within 20

Standard 1.OA.5: Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).

Essential Element EE.1.OA.5.b: Apply knowledge of “one less” to subtract one from a number.

Grade K Essential Element EE.K.CC.6:

- Identify whether the number of objects in one group is more or less than (when the quantities are clearly different) or equal to the number of objects in another group.

Grade 2 Essential Element EE.2.NBT.5.a:

- Identify the meaning of the “+” sign (i.e., combine, plus, add), “-” sign (i.e., separate, subtract, take), and the “=” sign (equal).

I Can Statements:

- I can identify *less*.
- I can take one item from 1, 2, or 3 objects.
- I can use concrete objects to take one away from groups of 4-10 objects.
- I can use concrete objects to subtract one and count how many are left.

Key Vocabulary:

- count
- less
- subtract
- take

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)

- counting items

Instructional Examples:

- Shown two groups of items, the student will identify which group has less.
- The student is given two shapes and can take one upon teacher request (e.g., “Here is a group of shapes. Take one.”).
- Given 6 crayons, the student can subtract one crayon upon teacher request.
- The student is given eight concrete objects; upon request, the student will subtract one object and then count the remaining number of objects.

Real World Connections:

- The student will be able to take one plate away from the dinner table because someone is not eating.

Resources:

- www.sheppardsoftware.com/mathgames/popup/popup_subtraction.htm

Grade 1 Math

1.OA.6 Element Card

Domain: Operations and Algebraic Thinking

Cluster: Add and subtract within 20

Standard 1.OA.6: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$).

Essential Element EE.1.OA.6: Begins in grade 3 (EE.3.OA.4)

Grade K Essential Element:

- N/A

Grade 2 Essential Element:

- Begins in grade 3 (EE.3.OA.4)

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 1 Math

1.OA.7-8 Element Card

Domain: Operations and Algebraic Thinking

Cluster: Work with addition and subtraction equations

Standard 1.OA.7: Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. *For example, which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$.*

Standard 1.OA.8: Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$, $5 = _ - 3$, $6 + 6 = _$.*

Essential Element EE.1.OA.7: N/A (See EE.1.OA.1.b and EE.2.NBT.5.a)

Essential Element EE.1.OA.8: Begins in grade 3 (EE.3.OA.4)

Grade K Essential Element:

- N/A

Grade 2 Essential Element:

- EE.2.NBT.5.a
- Begins in grade 3 (EE.3.OA.4)

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 1 Math

1.NBT.1.a Element Card

Domain: Number and Operations in Base Ten

Cluster: Extend the counting sequence

Standard 1.NBT.1: Count to 120, starting at any number less than 120. In this range, read and write numerals, and represent a number of objects with a written numeral.

Essential Element EE.1.NBT.1.a: Count by ones to 30.

Grade K Essential Element EE.K.CC.1:

- Starting with one, count to 10 by ones.

Grade 2 Essential Element EE.2.NBT.2.a:

- Count from 1 to 30 (count with meaning; cardinality).

I Can Statements:

- I can recognize numbers.
- I can count to ten.
- I can count by ones to 30.
- I can count by ones to 50.

Key Vocabulary:

- count
- ones

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)

- picture cards
- counting objects

Instructional Examples:

- Given two pictures cards, the students will indicate which one is a number.
- Given a group of 10 objects, the student is able to count the number of objects by ones.
- The student is able to count 30 pennies.
- The student takes an inventory of classroom objects and is able to accurately count to 50.

Real World Connections:

- The student will be able to count the number of treats needed for his or her birthday party.

Resources:

- <http://pbskids.org/games/counting.html>
- www.ictgames.com/whackAMole/index.html

Grade 1 Math

1.NBT.1.b Element Card

Domain: Number and Operations in Base Ten

Cluster: Extend the counting sequence

Standard 1.NBT.1: Count to 120, starting at any number less than 120. In this range, read and write numerals, and represent a number of objects with a written numeral.

Essential Element EE.1.NBT.1.b: Count as many as 10 objects and represent the quantity with the corresponding numeral.

Grade K Essential Element EE.K.CC.4:

- Demonstrate one-to-one correspondence, pairing each object with one and only one number and each number with one and only one object.

Grade 2 Essential Element EE.2.NBT.4:

- Compare sets of objects and numbers using appropriate vocabulary (more, less, equal).

I Can Statements:

- I can count to five.
- I can count up to 5 objects and select the correct number card.
- I can count up to 10 objects and select the corresponding number card.
- I can count up to 15 objects and select the corresponding number card.

Key Vocabulary:

- count
- number

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)

- counting objects
- white board

Instructional Examples:

- The student will count orally to five.
- The student will count one to five cookies and given two number cards, the student will select the number matching the number of cookies.
- The student will count 1 to 10 marbles and given two number cards, the student will select the number matching the number of marbles.
- The student will count 1 to 15 objects and write the corresponding numeral.

Real World Connections:

- The student will be able to count peers present for attendance and write the number on the board or piece of paper.

Resources:

- www.maths-games.org/counting-games.html
- www.primarygames.com/math/fishycount/

Grade 1 Math

1.NBT.2 Element Card

Domain: Number and Operations in Base Ten

Cluster: Understand place value

Standard 1.NBT.2: Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:

- a. 10 can be thought of as a bundle of ten ones—called a “ten.”
- b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.
- c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).

Essential Element EE.1.NBT.2: Create sets of 10.

Grade K Essential Element EE.K.CC.5:

- Count out up to three objects from a larger set, pairing each object with one and only one number name to tell how many.

Grade 2 Essential Element EE.2.NBT.6-7:

- Use objects, representations, and numbers (0-20) to add and subtract.

I Can Statements:

- I can count up to ten.
- I can bundle ones into groups of tens.
- I can create more than one group of tens with manipulatives.
- I can show two digit numbers using tens and zeros.

Key Vocabulary:

- sets
- tens
- one-digit
- ones
- two-digit

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)

- number tiles
- base ten cubes

Instructional Examples:

- The student will look at number tiles while counting to ten.
- The student is given 11 base ten cubes to sort into a pile of one ten stack and one cube.
- The student will create more than one group of tens when given 30 pennies.
- The student is given number six number tiles. Three tiles have the numbers one to three and the other three are all zeros. The student will pair up the number tiles with a zero tile to make two-digit numbers (10, 20, and 30).

Grade 1 Math

1.NBT.2 Element Card

Domain: Number and Operations in Base Ten

Cluster: Understand place value

Real World Connections:

- The student will be able to group money (e.g., pennies into dimes).

Resources:

- <http://illuminations.nctm.org/ActivityDetail.aspx?ID=218>
- http://www.glencoe.com/sites/common_assets/mathematics/ebook_assets/vmf/VMF-Interface.html

Grade 1 Math

1.NBT.3 Element Card

Domain: Number and Operations in Base Ten

Cluster: Understand place value

Standard 1.NBT.3: Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$.

Essential Element EE.1.NBT.3: Compare two groups of 10 or fewer items when the number of items in each group is similar.

Grade K Essential Element EE.K.CC.5:

- Count out up to three objects from a larger set, pairing each object with one and only one number name to tell how many.

Grade 2 Essential Element EE.2.NBT.4:

- Compare sets of objects and numbers using appropriate vocabulary (more, less, equal).

I Can Statements:

- I can identify a group of 10.
- I can identify that a group is less than 10 or greater than 10.
- I can identify that two groups are equal to each other.
- I can compare two groups of 10 and tell which is greater than the other.

Key Vocabulary:

- greater than
- most
- equal to
- less than
- least

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)

- counting objects

Instructional Examples:

- Given a variety of grouped items, the student will choose which group has 10 items.
- Given a variety of grouped items, the student will indicate which group has the most items/least items in them.
- Given a variety of grouped items, the student will indicate which groups are equal to each other.
- Given two sets of grouped items, the student will indicate which group is greater than or less than the other.

Real World Connections:

- The student will be able to identify when there is more/less of something (e.g., food items, classmates).

Resources:

- http://www.glencoe.com/sites/common_assets/mathematics/ebook_assets/vmf/VMF-Interface.html
- http://www.abcya.com/comparing_number_values_jr.htm

Grade 1 Math

1.NBT.4 Element Card

Domain: Number and Operations in Base Ten

Cluster: Use place value understanding and properties of operations to add and subtract

Standard 1.NBT.4: Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

Essential Element EE.1.NBT.4: Compose numbers less than or equal to five in more than one way.

Grade K Essential Element EE.K.CC.5:

- Count out up to three objects from a larger set, pairing each object with one and only one number name to tell how many.

Grade 2 Essential Element EE.2.NBT.5.b:

- Using concrete examples, compose and decompose numbers up to 10 in more than one way.

I Can Statements:

- I can recognize the numbers one to five.
- I can show one way to compose numbers to make five.
- I can compose numbers less than or equal to five in more than one way.
- I can tell the addends that will make a given sum.

Key Vocabulary:

- sum
- addend

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)

- number cards
- counting objects
- base ten cubes

Instructional Examples:

- Given numbers cards of two different numbers, the student will indicate the number the teacher requests (e.g., “Show me the four.”).
- Using concrete objects, the student will show one way to make five (e.g. student uses four pennies and one penny to make five pennies.).
- Given base ten cubes the student will put two groups together to make a set less than or equal to five in two or more ways (e.g. student adds three cubes and one cube and tells that it makes four cubes, and then adds two cubes and two cubes to make four cubes.).
- Given a sum, the student will tell the teacher what addends can make that sum (e.g., “What number plus what number equals four?”).

Grade 1 Math

1.NBT.4 Element Card

Domain: Number and Operations in Base Ten

Cluster: Use place value understanding and properties of operations to add and subtract

Real World Connections:

- The student will be able to create groups of five in various ways (e.g., pennies and nickels).

Resources:

- www.softschools.com/math/games/fun/math_lines/add_up_to_5/

Grade 1 Math

1.NBT.5 Element Card

Domain: Number and Operations in Base Ten

Cluster: Use place value understanding and properties of operations to add and subtract

Standard 1.NBT.5: Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.	Essential Element EE.1.NBT.5: N/A (See EE.1.OA.5.a and EE.1.OA.5.b)
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Grade K Essential Element: <ul style="list-style-type: none">N/A	Grade 2 Essential Element: <ul style="list-style-type: none">N/A
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 1 Math

1.NBT.6 Element Card

Domain: Number and Operations in Base Ten

Cluster: Use place value understanding and properties of operations to add and subtract

Standard 1.NBT.6: Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Essential Element EE.1.NBT.6: Decompose numbers less than or equal to five in more than one way.

Grade K Essential Element EE.K.CC.6:

- Identify whether the number of objects in one group is more or less than (when the quantities are clearly different) or equal to the number of objects in another group.

Grade 2 Essential Element EE.2.NBT.5.b:

- Using concrete examples, compose and decompose numbers up to 10 in more than one way.

I Can Statements:

- I can choose two numbers that equal five from a group of three numbers.
- I can choose two sets of numbers that equal a number less than or equal to five from a group of four numbers.
- I can use two combinations of numbers that will equal numbers less than or equal to five from a group of five numbers.
- I can use three combinations of numbers that will equal a number that is equal to or less than 10.

Key Vocabulary:

- equal to
- less than

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)

- number tiles

Instructional Examples:

- Given the number tiles one, four, and five, the student will choose the numbers one and four to demonstrate that they equal five.
- Given the number tiles two, three, four, and five, the student will choose the numbers two and three to equal five.
- Given the number tiles one, two, three, four, and five, the student will choose the number sets that equal five or less.
- Given the number tiles one, two, three, four, and five, the student will choose the number sets that equal 10 or less.

Real World Connections:

- The student will be able to break down monetary amounts to give change.

Resources:

- <http://homeschoolparent.blogspot.com/2010/10/number-tile-cards.html>

Grade 1 Math

1.MD.1-2 Element Card

Domain: Measurement and Data

Cluster: Measure lengths indirectly and by iterating length units

Standard 1.MD.1: Order three objects by length; compare the lengths of two objects indirectly by using a third object.

Standard 1.MD.2: Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. *Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.*

Essential Element EE.1.MD.1-2: Compare lengths to identify which is longer/shorter, taller/shorter.

Grade K Essential Element:

- Not addressed

Grade 2 Essential Element EE.2.MD.1:

- Measure the length of objects using non-standard units.

I Can Statements:

- I can recognize that items are different lengths.
- I can identify shorter or taller objects.
- I can compare lengths to identify which is longer/shorter, taller/shorter.
- I can measure the length of objects using non-standard units.

Key Vocabulary:

- length
- taller
- measure
- height
- shorter

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)

- measuring items

Instructional Examples:

- The student is given two pencils of different lengths; teacher asks, "Are they the same length?" Using a communication board, the student will select, "No."
- Given two juice boxes of different heights, the student will identify the shorter or taller one upon teacher request.
- Two peers will stand in front of the student and the student will identify which peer is taller/shorter.
- Given a non-standard measuring unit (e.g., backpack), the student will measure an object (e.g., "How many backpacks long is the art table?").

Real World Connections:

- The student will be able to identify the shortest line at the grocery store to check out sooner.

Grade 1 Math

1.MD.1-2 Element Card

Domain: Measurement and Data

Cluster: Measure lengths indirectly and by iterating length units

Resources:

- www.softschools.com/grades/kindergarten/

Grade 1 Math

1.MD.3.a Element Card

Domain: Measurement and Data

Cluster: Tell and write time

Standard 1.MD.3: Tell and write time in hours and half-hours using analog and digital clocks.

Essential Element EE.1.MD.3.a: Demonstrate an understanding of the terms *tomorrow*, *yesterday*, and *today*.

Grade K Essential Element:

- Not addressed

Grade 2 Essential Element EE.2.MD.7:

- Identify on a digital clock the hour that matches a routine activity.

I Can Statements:

- I can understand the meaning of today.
- I can use the terms today and yesterday.
- I can use the terms tomorrow, yesterday, and today.
- I can order the terms tomorrow, yesterday and today.

Key Vocabulary:

- today
- yesterday
- tomorrow

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)

- sequence cards
- drawing software

Instructional Examples:

- The student will respond appropriately when asked “How are you today?”
- The day after a field trip, the teacher asks the student to draw a picture of what he or she saw yesterday. The student will draw or use a drawing program to complete task.
- During conversation, the student will use tomorrow, yesterday, and today appropriately.
- During a shared writing activity, the student will order teacher generated sequence cards that contain the words today, tomorrow, and yesterday.

Real World Connections:

- The student will be able to plan events for tomorrow and share events from yesterday and today.

Resources:

- http://www.iptv.org/kids/story.cfm/video/sesa_20110607_yesterday_today_tomorrow/video

Grade 1 Math

1.MD.3.b Element Card

Domain: Measurement and Data

Cluster: Tell and write time

Standard 1.MD.3: Tell and write time in hours and half-hours using analog and digital clocks.

Essential Element EE.1.MD.3.b: Demonstrate an understanding of the terms *morning, afternoon, day, and night*.

Grade K Essential Element:

- Not addressed

Grade 2 Essential Element EE.2.MD.7:

- Identify on a digital clock the hour that matches a routine activity.

I Can Statements:

- I can understand the meaning of morning.
- I can use the terms morning, afternoon, and night.
- I can understand the terms, morning, afternoon, day, and night.
- I can order the terms morning, afternoon, and night.

Key Vocabulary:

- morning
- afternoon
- day
- night

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)

- class photo album

Instructional Examples:

- Upon entering the room, the student will greet teacher by saying “Good morning.”
- After a shared reading of *Morning, Noon, and Night* by Jean Craighead George, the student will draw a picture of day or night.
- In a conversation, the student will answer questions about the time of day (e.g. When is gym? Student responds in the morning? When will we have Art? Student responds this afternoon.).
- Shown four pictures of the student’s day (e.g. eating breakfast, afternoon recess, going to bed), the student will match the words: morning, afternoon, and night to the pictures.

Real World Connections:

- The student will be able to retell events from specific times of his or her day.

Resources:

- http://www.dailymotion.com/video/xlmly2_time-of-day-morning-afternoon-evening-and-night-kids-learning-series_funy
- *Morning, Noon, and Night* by Jean Craighead George

Grade 1 Math

1.MD.3.c Element Card

Domain: Measurement and Data

Cluster: Tell and write time

Standard 1.MD.3: Tell and write time in hours and half-hours using analog and digital clocks.

Essential Element EE.1.MD.3.c: Identify activities that come before, next, and after.

Grade K Essential Element:

- Not addressed

Grade 2 Essential Element EE.2.MD.7:

- Identify on a digital clock the hour that matches a routine activity.

I Can Statements:

- I can identify beginning and ending.
- I can identify activities that come before.
- I can identify activities that come before, next, and after.
- I can identify the hour on a digital clock that matches a routine activity.

Key Vocabulary:

- before
- next
- ending
- after
- beginning

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)

- sequence cards
- time cards

Instructional Examples:

- The student will clap at the end of the music program.
- The student is shown two pictures and will select the picture that comes before the other (e.g. kids rolling a snowball and a snowman; mom stirring cookie dough and a pan of cookies).
- The student is shown two pictures and will indicate which picture comes next or after.
- The student will select the card showing a clock with the time of noon to identify lunch time.

Real World Connections:

- The student will be able to identify what comes next in their daily schedule.

Resources:

- <http://pbskids.org/arthur/games/storyscramble/scramble.html>

Grade 1 Math

1.MD.3.d Element Card

Domain: Measurement and Data

Cluster: Tell and write time

Standard 1.MD.3: Tell and write time in hours and half-hours using analog and digital clocks.

Essential Element EE.1.MD.3.d: Demonstrate an understanding that telling time is the same every day.

Grade K Essential Element:

- Not addressed

Grade 2 Essential Element EE.2.MD.7:

- Identify on a digital clock the hour that matches a routine activity.

I Can Statements:

- I can understand the meaning of time.
- I can identify the time when an activity takes place.
- I can understand that telling time is the same every day.
- I can identify the hour on a digital clock that matches a routine activity.

Key Vocabulary:

- clock
- schedule
- time

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)

- digital clock
- visual schedule

Instructional Examples:

- The student will motion toward the clock when asked “What time is it?”
- The student will indicate whether music is in the morning or afternoon.
- The student will use a picture schedule to follow activities of the day.
- The student will look at the clock at 10:00 a.m. and says “It is time for snack.”

Real World Connections:

- The student will be able to follow a daily schedule (e.g., get ready for bed at 8:00pm).

Resources:

- [The Clock Struck One: A Time-Telling Tale](#) by Trudy Harris

Grade 1 Math

1.MD.4 Element Card

Domain: Measurement and Data

Cluster: Represent and interpret data

Standard 1.MD.4: Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

Essential Element EE.1.MD.4: Organize data into categories by sorting.

Grade K Essential Element EE.K.MD.1-2:

- Classify objects according to attributes (big/small, heavy/light).

Grade 2 Essential Element EE.2.MD.9-10:

- Create picture graphs from collected measurement data.

I Can Statements:

- I can sort items into two categories.
- I can sort items into three categories.
- I can sort items into four categories.
- I can sort items into five categories.

Key Vocabulary:

- organize
- category
- sort
- data

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)

- sorting items

Instructional Examples:

- Given sorting sticks of two different colors the student will organize them into two piles.
- Given sorting sticks with three different patterns the student will organize them into three piles.
- Given sorting sticks of four different colors the student will organize them into four piles.
- Given sorting sticks of five different colors the student will organize them into five piles.

Real World Connections:

- The student will be able to sort clothing when doing the laundry.

Resources:

- <http://familycrafts.about.com/od/craftsticks/a/SortingSticksCraft.htm>
- http://www.glencoe.com/sites/common_assets/mathematics/ebook_assets/vmf/VMF-Interface.html

Grade 1 Math

1.G.1 Element Card

Domain: Geometry

Cluster: Reason with shapes and their attributes

Standard 1.G.1: Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.

Essential Element EE.1.G.1: Identify the relative position of objects that are on, off, in, and out.

Grade K Essential Element EE.K.G.2-3:

- Match shapes of same size and orientation (circle, square, rectangle, triangle).

Grade 2 Essential Element EE.2.G.1:

- Identify common two-dimensional shapes: square, circle, triangle, and rectangle.

I Can Statements:

- I can demonstrate how to turn on an item when requested.
- I can demonstrate how to turn off an item when requested.
- I can identify the position of an object (on, off, in, out).
- I can identify a common two-dimensional shape (square, circle).

Key Vocabulary:

- position
- in/out
- circle
- on/off
- 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)

- audiobook
- paper shapes

Instructional Examples:

- Given instruction to get ready for silent reading, the student will turn on their audiobook.
- Given instruction, the student will turn off the light.
- The student will identify the position of an object (e.g., “Is the crayon *in* the box?”).
- Given a paper shape, the student will identify the shape by name (e.g., The teacher asks, “What is this shape?” and the student replies, “Circle.”).

Real World Connections:

- The student will be able to follow instructions from teacher and parents about coming in/out and turning lights on/off.

Resources:

- <http://www.meddybemps.com/Opposites/OnOff.html>
- <http://www.turtlediary.com/kindergarten-games/esl-efl-games/opposite-adjectives.html>

Grade 1 Math

1.G.2 Element Card

Domain: Geometry

Cluster: Reason with shapes and their attributes

Standard 1.G.2: Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. (Students do not need to learn formal names such as “right rectangular prism”.)

Essential Element EE.1.G.2: Sort shapes of same size and orientation (circle, square, rectangle, triangle).

Grade K Essential Element EE.K.G.2-3:

- Match shapes of same size and orientation (circle, square, rectangle, triangle).

Grade 2 Essential Element EE.2.G.1:

- Identify common two-dimensional shapes: square, circle, triangle, and rectangle.

I Can Statements:

- I can sort items into two categories.
- I can sort items into three categories.
- I can sort shapes of the same size and orientation.
- I can identify common two-dimensional shapes (square, circle, triangle, and rectangle).

Key Vocabulary:

- sort
- square
- triangle
- circle
- rectangle

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)

- sorting items
- shape cards

Instructional Examples:

- Given various items that are two different colors (green and orange), the student will sort them into two categories.
- Given various items that are three different sizes (small, medium, and large), the student will sort them into three categories.
- Given pictures of triangles, circles, rectangles, and squares of different sizes and orientation, the student will sort them according to shape.
- Given pictures of common two-dimensional shapes (square, circle, triangle, and rectangle), the student will identify each shape.

Real World Connections:

- The student will be able to recognize shapes in their environment (e.g., stop sign).

Grade 1 Math

1.G.2 Element Card

Domain: Geometry

Cluster: Reason with shapes and their attributes

Resources:

- http://www.glencoe.com/sites/common_assets/mathematics/ebook_assets/vmf/VMF-Interface.html (set to pre-school)

Grade 1 Math

1.G.3 Element Card

Domain: Geometry

Cluster: Reason with shapes and their attributes

Standard 1.G.3: Partition circles and rectangles into two and four equal shares, describe the shares using the words *halves*, *fourths*, and *quarters*, and use the phrases *half of*, *fourth of*, and *quarter of*. Describe the whole as *two of* or *four of* the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.

Essential Element EE.1.G.3: Put together two pieces to make a shape that relates to the whole (i.e., two semicircles to make a circle, two squares to make a rectangle).

Grade K Essential Element EE.K.G.2-3:

- Match shapes of same size and orientation (circle, square, rectangle, triangle).

Grade 2 Essential Element EE.2.G.1:

- Identify common two-dimensional shapes: square, circle, triangle, and rectangle.

I Can Statements:

- I can put two halves together to make a whole.
- I can distinguish between a half and a whole.
- I can put together two pieces to make a whole shape (circle and rectangle).
- I can decompose a circle and triangle into two identical pieces.

Key Vocabulary:

- half
- circle
- rectangle
- whole
- semi-circle
- 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)

- pictures (halves and whole)
- paper or concrete shapes

Instructional Examples:

- Given two halves of a picture, the student will put them together to make a whole picture.
- Shown two pictures, one half/incomplete and one whole/complete, the student will identify the picture that is whole/complete.
- Given two semi circles of equal size and two squares of equal size, the student will place them together appropriately to make a circle and a rectangle.
- Given a picture of a circle and a rectangle the student will separate them into semi-circles and squares.

Real World Connections:

- The student will be able to put together puzzles.

Resources:

- <http://illuminations.nctm.org/Lessons/SquaresRectangles/SquaresRectangles-AS.pdf>

Resources for Grades K, 1, 2

Kindergarten:

<http://www.coolmath-games.com/0-findthepair/>

http://www.glencoe.com/sites/common_assets/mathematics/ebook_assets/vmf/VMF-Interface.html

Grade One:

<http://pbskids.org/curiousgeorge/busyday/allie/>

- Counting with Allie, counting game

www.softschools.com/grades/kindergarten/

- measurement games

http://www.iptv.org/kids/story.cfm/video/sesa_20110607_yesterday_today_tomorrow/video

- Video using yesterday, tomorrow, today

http://www.dailymotion.com/video/xlmly2_time-of-day-morning-afternoon-evening-and-night-kids-learning-series_funy

- video using morning, noon, night

<http://pbskids.org/games/counting.html>

- PBS counting games

www.softschools.com/math/games/fun/math_lines/add_up_to_5/

- game to add numbers up to five

www.sheppardsoftware.com/mathgames/popup/popup_subtraction.htm

- Pearl Search, easy subtraction game

<http://illuminations.nctm.org/ActivityDetail.aspx?ID=218>

<http://exchange.smarttech.com/details.html?id=0ac067b9-72cb-4558-a783-64cdf58c2094>

http://www.glencoe.com/sites/common_assets/mathematics/ebook_assets/vmf/VMF-Interface.html

http://www.abcya.com/comparing_number_values_jr.htm

<http://homeschoolparent.blogspot.com/2010/10/number-tile-cards.html>

<http://www.turtlediary.com/kindergarten-games/esl-efl-games/opposite-adjectives.html>

- Games

Grade Two:

<http://pbskids.org/games/shapes.html>

- shape games

<http://www.sheppardsoftware.com/preschool/ngames/shapes.htm>

- Purpy's shapes

www.fun4thebrain.com/addition.html

- addition games

<http://www.bbc.co.uk/cbeebies/tikkabilla/games/tikkabilla-tambasabacus/>

- Tamba's Abacus-counting game

<http://resources.oswego.org/games/spookyseq/spookyseq.html>

- Spooky Sequences-find the sequence in numbers

<http://www.ictgames.com/whackAMole/index.html>

- Whack-a- Mole- number sequence

<http://kinderwebgames.com/one.html>

- recognizing numbers

<http://www.ictgames.com/mucky.html>

- Mucky Monsters- using more, less

<http://www.k-5mathteachingresources.com/addition-and-subtraction-activities.html>

- activities for teaching + and –

http://www.ehow.com/how_8549557_teach-addition-kindergarten.html

- information on teaching addition using the +symbol

<http://exchange.smarttech.com/details.html?id=391c58e1-62bf-42eb-ba2f-1df01de02ef9>

- game to compose and decompose numbers

<http://www.sheppardsoftware.com/mathgames/earlymath/bugabalooShoes.htm>

- Bugabaloo- online game for addition

<http://pbskids.org/dinosaurtrain/games/howbigareyou.html>

- How Big are You?- measuring using non-standard units

http://www.internet4classrooms.com/common_core/order_three_objects_length_compare_lengths_measurement_data_first_1st_grade_math_mathematics.htm

- online games for measuring

<http://www.gpbkids.org/countonit/kindergarten/money/>

- Count on it- money game

<http://classroom.ic-schools.net/basic/math-time.html>

- telling time games

<http://pbskids.org/sesame/games/tellyShapes.html>

- Telly's Shape Garden

<http://www.turtlediary.com/grade-1-games/math-games/graph-and-tally.html>

- graph and tally online game