

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: Kindergarten



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September 2013

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.

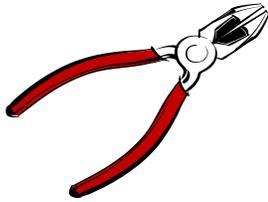
These tools are:

- ✓ 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

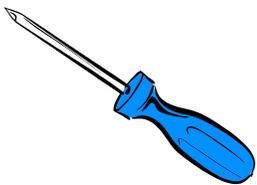
These tools are not:

- ✓ 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.



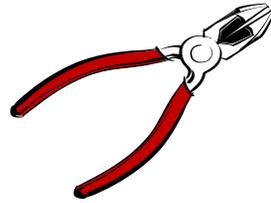
Website Resources - lists of web addresses where a variety of educational ideas can be found.

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.

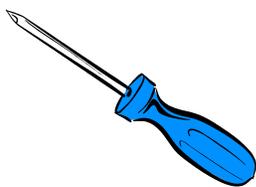
The Essential Elements are highlighted to indicate the importance of their focus.

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 PlanName: SampleWeek Of: Oct. 7 to 11, 2013Gen. Ed. Contact: Mrs. JonesSubject: 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 K Math

K.CC.1 Element Card

Domain: Counting and Cardinality

Cluster: Know number names and the count sequence

Standard K.CC.1: Count to 100 by ones and by tens.

Essential Element EE.K.CC.1: Starting with one, count to 10 by ones.

Grade PS Essential Element:

- Not addressed

Grade 1 Essential Element EE.1.NBT.1.a:

- Count by ones to 30.

I Can Statements:

- I can identify a number.
- I can count to 5 by ones.
- I can count to 10 by ones.
- I can count to 15 by ones.

Key Vocabulary:

- count
- tens
- sequence
- 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)

- velcro numbers
- magnetic numbers
- iPad or electronic tablet

Instructional Examples:

- Given a card with a number and a card with a non-number, the student will identify the “number”.
- Given five items, the student will orally count the items by ones, starting with one.
- Given 10 pieces of paper labeled with the numbers 1-10, the student will arrange the numbers in correct order starting with one.
- The student will type the numbers 1-15 in a word processing program, starting with one.

Real World Connections:

- The student will be able to count items.
- The student will be able to count money.

Grade K Math

K.CC.1 Element Card

Domain: Counting and Cardinality

Cluster: Know number names and the count sequence

Resources:

- <http://www.k-5mathteachingresources.com/>
- <http://illuminations.nctm.org/ActivityDetail.aspx?ID=75>
- 100 School Days by Anne Rockwell
- 100 Days of School by Trudy Harris
- 100 Days of Cool by Stewart Murphy

Grade K Math

K.CC.2-3 Element Card

Domain: Counting and Cardinality

Cluster: Know number names and the count sequence

<p>Standard K.CC.2: Count forward beginning from a given number within the known sequence (instead of having to begin at 1).</p> <p>Standard K.CC.3: Write numbers from 0-20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).</p>	<p>Essential Element EE.K.CC.2: Begins in grade 2 (EE.2.NBT.2.b)</p> <p>Essential Element EE.K.CC.3: Begins in grade 2 (EE.2.NBT.3)</p>
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<p>Grade PS Essential Element:</p> <ul style="list-style-type: none">• Not addressed	<p>Grade 1 Essential Element:</p> <ul style="list-style-type: none">• Begins in grade 2 (EE.2.NBT.2.b)• Begins in grade 2 (EE.2.NBT.3)
<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 K Math

K.CC.4 Element Card

Domain: Counting and Cardinality

Cluster: Count to tell the number of objects

<p>Standard K.CC.4: Understand the relationship between numbers and quantities; connect counting to cardinality.</p> <ol style="list-style-type: none">When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.Understand that each successive number name refers to a quantity that is one larger.	<p>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.</p>
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<p>Grade PS Essential Element:</p> <ul style="list-style-type: none">Not addressed	<p>Grade 1 Essential Element EE.1.NBT.1.a:</p> <ul style="list-style-type: none">Count by ones to 30.
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<p>I Can Statements:</p> <ul style="list-style-type: none">I can identify a number.I can say numbers up to 10.I can pair each object with one number and one number with each object.I can identify the numeral for the number of objects I counted from 0-20.	
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<p>Key Vocabulary:</p> <ul style="list-style-type: none">numberpair	<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> <ul style="list-style-type: none">number cardsnumber linecounting objects
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<p>Instructional Examples:</p> <ul style="list-style-type: none">Given two cards, one with a number and one with a non-number, the student will indicate which card shows a number.The student will count to ten starting with one.Given counting bears, the student will match each bear to a corresponding number on a number line (e.g., One bear goes on the number 1, another bear goes on the number 2...).Given various numbers of objects, the student will count the objects and choose (from cards numbered 0-20) the card with the corresponding number.	
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Grade K Math

K.CC.4 Element Card

Domain: Counting and Cardinality

Cluster: Count to tell the number of objects

Real World Connections:

- The student will be able to identify how many of something he or she has.

Resources:

- <http://www.k-5mathteachingresources.com/>

Grade K Math

K.CC.5 Element Card

Domain: Counting and Cardinality

Cluster: Count to tell the number of objects

Standard K.CC.5: Count to answer, “How many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects.

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 PS Essential Element:

- Not addressed

Grade 1 Essential Element EE.1.NBT.3:

- Compare two groups of 10 or fewer items when the number of items in each group is similar.

I Can Statements:

- I can count one object.
- I can count one object from a set of five.
- I can count two objects.
- I can count three objects and pair with appropriate number name.

Key Vocabulary:

- number
- larger
- pair

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 tiles
- number cards

Instructional Examples:

- The student will count one object (e.g., pencil, book).
- The student will choose one block from a group of five counting blocks.
- The student will pair two objects with the number 2.
- Given three number cards labeled 1, 2, 3, the student will match groups of objects to each card (e.g., three pencils goes with the card labeled “3”).

Real World Connections:

- The student will be able to set the dinner table with places for a specific number of people.

Resources:

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

Grade K Math

K.CC.6 Element Card

Domain: Counting and Cardinality

Cluster: Compare numbers

Standard K.CC.6: Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies. (Include groups with up to ten objects).

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 PS Essential Element:

- Not addressed

Grade 1 Essential Element EE.1.OA.5a-b:

- a. Use manipulatives or visual representations to indicate the number that results when adding one more.
- b. Apply knowledge of “one less” to subtract one from a number.

I Can Statements:

- I can identify if two groups of objects are equal or unequal (same or different).
- I can identify which group has more.
- I can identify whether one group is more than, less than, or equal to another clearly different group.
- I can identify whether one group is more than, less than, or equal to another similar group.

Key Vocabulary:

- more
- equal
- less
- unequal

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 tiles
- number cards

Instructional Examples:

- Shown two groups of toy cars, the student will tell whether the two groups are equal or unequal (e.g., “There are two cars in this group and two cars in this group. Is the number of cars in both groups the same?”).
- Shown two groups of items, the student will point to the group that has more items.
- Shown two groups of classmates (one group with two students and one group with nine students), the student will identify which group contains less students (e.g., “Which group is smaller?”).
- Shown two groups of apples (one with three apples and one with four apples), the student will identify which group contains more apples.

Real World Connections:

- The student will be able to tell when there is more of something (e.g., the plate with more fruit than vegetables).

Grade K Math

K.CC.6 Element Card

Domain: Counting and Cardinality

Cluster: Compare numbers

Resources:

- <http://www.songsforteaching.com/jennyfixmanedutunes/alligatorgreaterlessthan.htm>
- <http://www.k-5mathteachingresources.com/>

Grade K Math

K.CC.7 Element Card

Domain: Counting and Cardinality

Cluster: Compare numbers

Standard K.CC.7: Compare two numbers between 1 and 10 presented as written numerals.	Essential Element EE.K.CC.7: Begins in grade 2 (EE.2.NBT.4)
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Grade PS Essential Element: <ul style="list-style-type: none">Not addressed	Grade 1 Essential Element: <ul style="list-style-type: none">Begins in grade 2 (EE.2.NBT.4)
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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)
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Instructional Examples:

Real World Connections:

Resources:

Grade K Math

K.OA.1 Element Card

Domain: Operations and Algebraic Thinking

Cluster: Understand addition as putting together and adding to, and understand subtraction as taking part and taking from

Standard K.OA.1: Represent addition and subtraction with objects, fingers, mental images, drawings (Drawings need not show details but should show the mathematics in the problem.), sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.

Essential Element EE.K.OA.1: Represent addition as “putting together” or subtraction as “taking from” in everyday activities.

Grade PS Essential Element:

- Not addressed

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

- Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), or acting out situations.

I Can Statements:

- I can put items together to show more.
- I can take items away to show less.
- I can put items together and take items away to show addition and subtraction.
- I can add or subtract concrete objects to solve problems.

Key Vocabulary:

- put together
- add
- solve
- take from/away
- subtract

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)

- pennies
- straws

Instructional Examples:

- Shown two groups of pennies, the student will put them together to show *more* pennies (e.g., “Put these together so you have more pennies.”).
- Given a group of straws, the student will remove some of the straws to show taking away/less (e.g., “Here are some straws. Take some away from the pile so you have fewer straws.”).
- The student will put items (e.g., counting bears, pencils) together to show addition (e.g., “Add more bears to your pile.”) or take items away to show subtraction (e.g., “Take some of the pencils away from your pile.”).
- The student will participate in activities where peers act out addition and subtraction problems (e.g., “Jim has three markers. Ann will give him two more. Now count all of the markers Jim has. How many are there?”).

Real World Connections:

- The student will be able to give more of an item upon request or request more of something.

Grade K Math

K.OA.1 Element Card

Domain: Operations and Algebraic Thinking

Cluster: Understand addition as putting together and adding to, and understand subtraction as taking part and taking from

Resources:

- <http://www.gamequarium.com/addition.html>

Grade K Math

K.OA.2-5 Element Card

Domain: Operations and Algebraic Thinking

Cluster: Understand addition as putting together and adding to, and understand subtraction as taking part and taking from

<p>Standard K.OA.2: Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.</p> <p>Standard K.OA.3: Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5 = 2 + 3$ and $5 = 4 + 1$).</p> <p>Standard K.OA.4: For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.</p> <p>Standard K.OA.5: Fluently add and subtract within 5.</p>	<p>Essential Element EE.K.OA.2: Begins in grade 2 (EE.2.NBT.6–7)</p> <p>Essential Element EE.K.OA.3: Begins in grade 1 (EE.1.NBT.6)</p> <p>Essential Element EE.K.OA.4: Begins in grade 1 (EE.1.NBT.2)</p> <p>Essential Element EE.K.OA.5: Begins in grade 3 (EE.3.OA.4)</p>
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<p>Grade PS Essential Element:</p> <ul style="list-style-type: none">• Not addressed	<p>Grade 1 Essential Element:</p> <ul style="list-style-type: none">• Begins in grade 2 (EE.2.NBT.6–7)• EE.1.NBT.6• EE.1.NBT.2• Begins in grade 3 (EE.3.OA.4)
<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 K Math

K.NBT.1 Element Card

Domain: Number and Operations in Base Ten

Cluster: Work with numbers 11-19 to gain foundations for place value

Standard K.NBT.1: Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (such as $18 = 10 + 8$); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.

Essential Element EE.K.NBT.1: Begins in grade 1 (EE.1.NBT.4 and EE.1.NBT.6)

Grade PS Essential Element:

- Not addressed

Grade 1 Essential Element EE.1.NBT.4:

- Compose numbers less than or equal to five in more than one way.

Grade 1 Essential Element EE.1.NBT.6:

- Decompose numbers less than or equal to five in more than one way.

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 K Math

K.MD.1-2 Element Card

Domain: Measurement and Data

Cluster: Describe and compare measurable attributes

Standard K.MD.1: Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.

Standard K.MD.2: Directly compare two objects with a measurable attribute in common, to see which object has “more of”/“less of” the attribute, and describe the difference. *For example, directly compare the heights of two children, and describe one child as taller/shorter.*

Essential Element EE.K.MD.1-2: Classify objects according to attributes (big/small, heavy/light).

Grade PS Essential Element:

- Not addressed

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

- Compare lengths to identify which is longer/shorter, taller/shorter.

I Can Statements:

- I can identify one attribute of an object.
- I can sort items into two groups.
- I can classify objects according to attributes.
- I can compare lengths to identify which is longer/shorter, taller/shorter.

Key Vocabulary:

- compare
- longer
- taller
- sort
- 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)

- sorting bins

Instructional Examples:

- Given two objects (e.g., a ball and a block), the student will point to the item with the requested attribute (e.g., “Which one is round?”).
- Given two sorting bins (e.g., one red and one blue) and a variety of red and blue objects, the student will place each item in the appropriate bin.
- Shown two items and asked a question (e.g., Which one is big?”), the student will identify the item by attribute (e.g., pointing to the big item).
- Shown two items (e.g., strings, classmates) of clearly different length/height, the student will identify the longer/shorter, taller/shorter item.

Real World Connections:

- The student will be able to sort items by attribute (e.g., socks, shoes).

Grade K Math

K.MD.1-2 Element Card

Domain: Measurement and Data

Cluster: Describe and compare measurable attributes

Resources:

- <http://www.kindergartenkindergarten.com/math-warm-ups/>
- [Is it Larger? Is it Smaller?](#) by Tana Hoben

Grade K Math

K.MD.3 Element Card

Domain: Measurement and Data

Cluster: Classify objects and count the number of objects in each category

Standard K.MD.3: Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. (Limit category counts to be less than or equal to 10.)	Essential Element EE.K.MD.3: Begins in grade 1 (EE.1.MD.4)
Grade PS Essential Element: <ul style="list-style-type: none">Not addressed	Grade 1 Essential Element EE.1.MD.4: <ul style="list-style-type: none">Organize data into categories by sorting.
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 K Math

K.G.1 Element Card

Domain: Geometry

Cluster: Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres)

Standard K.G.1: Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as <i>above</i> , <i>below</i> , <i>beside</i> , <i>in front of</i> , <i>behind</i> , and <i>next to</i> .	Essential Element EE.K.G.1: Begins in grade 1 (EE.1.G.1)
Grade PS Essential Element: <ul style="list-style-type: none">Not addressed	Grade 1 Essential Element EE.1.G.1: <ul style="list-style-type: none">Identify the relative position of objects that are on, off, in, and out.
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 K Math

K.G.2-3 Element Card

Domain: Geometry

Cluster: Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres)

<p>Standard K.G.2: Correctly name shapes regardless of their orientations or overall size.</p> <p>Standard K.G.3: Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”).</p>	<p>Essential Element EE.K.G.2-3: Match shapes of same size and orientation (circle, square, rectangle, triangle).</p>
<p>Grade PS Essential Element:</p> <ul style="list-style-type: none">• Not addressed	<p>Grade 1 Essential Element EE.1.G.2:</p> <ul style="list-style-type: none">• Sort shapes of same size and orientation (circle, square, rectangle, triangle).
<p>I Can Statements:</p> <ul style="list-style-type: none">• I can match items of the same size.• I can match shapes of same size and orientation (circle, square).• I can match shapes of same size and orientation (circle, square, rectangle, triangle).• I can match shapes of various size and orientation (circle, square, rectangle, triangle).	
<p>Key Vocabulary:</p> <ul style="list-style-type: none">• match• circle• square• orientation	<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> <ul style="list-style-type: none">• shape cards• shape sorter
<p>Instructional Examples:</p> <ul style="list-style-type: none">• Given three items (two of the same size and one of clearly different size), the student will match the two items of the same size.• The student will use a shape sorter to match circle and square shapes.• Given picture cards of circles, squares, rectangles, and triangles of the same size and orientation, the student will match like shapes.• Given a card with a shape (circle, square, rectangle, or triangle), the student will select, from an array of cards, a card with the same shape shown in various sizes and orientations.	
<p>Real World Connections:</p> <ul style="list-style-type: none">• The student will be able to match lids to containers.• The student will be able to locate safety signs in the community by shape.	

Grade K Math

K.G.2-3 Element Card

Domain: Geometry

Cluster: Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres)

Resources:

- www.childcareland.com
- http://www.abc123kidz.com/shape_quiz.html

Grade K Math

K.G.4-6 Element Card

Domain: Geometry

Cluster: Analyze, compare, create, and compose shapes

<p>Standard K.G.4: Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/“corners”) and other attributes (e.g., having sides of equal length).</p> <p>Standard K.G.5: Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.</p> <p>Standard K.G.6: Compose simple shapes to form larger shapes. <i>For example, “Can you join these two triangles with full sides touching to make a rectangle?”</i></p>	<p>Essential Element EE.K.G.4: Begins in grade 7 (EE.7.G.1)</p> <p>Essential Element EE.K.G.5: N/A</p> <p>Essential Element EE.K.G.6: Begins in grade 1 (EE.1.G.3)</p>
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<p>Grade PS Essential Element:</p> <ul style="list-style-type: none">• Not addressed	<p>Grade 1 Essential Element:</p> <ul style="list-style-type: none">• Begins in grade 7 (EE.7.G.1)• N/A• EE.1.G.3
<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>	

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.jc-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