

**KINDERGARTEN ENVISION MATH CURRICULUM MAP
CANYONS SCHOOL DISTRICT
2011 – 2012**

Curriculum Mapping Purpose

Canyons School District’s curriculum math maps are standards-based maps driven by the Common Core State Standards and implemented using Scott Foresman-Addison Wesley enVisionMATH ©2011. Student achievement is increased when both teachers and students know where they are going, why they are going there, and what is required of them to get there. To that end, curriculum maps answer these questions:

REVIEW, CORE, EXTEND, ASSESS	COMMON CORE STANDARD	ENVISION LESSON	VOCABULARY & NOTES
<i>What do students know?</i>	<i>What concepts and skills do students need to know?</i>	<i>How will students learn the standards?</i>	<i>What vocabulary is necessary for depth of understanding?</i>

Curriculum Maps are a tool for:

- **ALIGNMENT:** Provides support and coordination between concepts, skills, standards, curriculum, and assessments
- **COMMUNICATION:** Articulates expectations and learning goals for students
- **PLANNING:** Focuses instruction and targets critical information
- **COLLABORATION:** Promotes professionalism and fosters dialogue between colleagues about best practices pertaining to sequencing, unit emphasis and length, integration, and review strategies

These maps were collaboratively developed and refined by teacher committees using feedback from classroom teachers, achievement coaches, building administrators, and the office of Evidence-Based Learning. It is with much appreciation that we recognize the many educators that collaborated in the effort to provide these maps for the teachers and students of CSD. Specific individuals that have assisted in the writing and editing of this document include:

Tana	Allred	Karen	Davis	Sheila	McDonald
Marlene	Barbano	Celeste	Erickson	Julie	McFarland
Karen	Bentley	Julie	Fielding	Kimille	Moreton
Catherine	Bond	Barbara	Foltz	Debbie	Owens
Trish	Boswell	Patricia	French	Teresa	Ramey
Jen	Buttars	Melissa	Garber	Joani	Richardson
Rebekah	Callahan	LaNae	Goates	Piper	Riddle
Wendy	Casperson	Elizabeth	Gould	Amber	Roderick-Landward
Trudy	Cloward	Amanda	Hansen	Jan	Shreeve
Stephanie	Cobabe	Lisa	Hubbard	Cathy	Sunderland
Bethany	Cordes	Tanya	Johnson	Nancy	Swinyard
MaryLou	Damjanovich	Kimberly	Jones	Tara	Toraya
Tami	Dautel	Jones	Karlie	Jessica	Vidal
Steve	Davies	Emigh	Lo	LeeAnne	Walker

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Kindergarten Overview

Counting and Cardinality

(K.CC)

- Know number names and the count sequence.
- Count to tell the number of objects.
- Compare numbers.

Operations and Algebraic Thinking

(K.OA)

- Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

Number and Operations in Base Ten

(K.NBT)

- Work with numbers 11–19 to gain foundations for place value.

Measurement and Data

(K.MD)

- Describe and compare measurable attributes.
- Classify objects and count the number of objects in categories.

Geometry

(K.G)

- Identify and describe shapes.
- Analyze, compare, create, and compose shapes.

Two Critical Areas

In Kindergarten, instructional time should focus on two critical areas:

- representing, relating, and operating on whole *numbers, initially with sets of objects;
- describing shapes and space.
 - More learning time in Kindergarten should be devoted to number than to other topics.

Common Core Practice Standards

Overarching habits of mind of a productive mathematical thinker

1. Make sense of problems and persevere in solving them
6. Attend to precision

Reasoning and explaining

2. Reason abstractly and quantitatively
3. Construct viable arguments and critique the reasoning of others

Modeling and using tools

4. Model with mathematics
5. Use appropriate tools strategically

Seeing structure and generalizing

7. Look for and make use of structure
8. Look for and express regularity in repeated reasoning

The Common Core Standards for Mathematical Practice

The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. These practices rest on important processes and proficiencies with longstanding importance in mathematics education.

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Connecting the Standards for Mathematical Practice to the Standards for Mathematical Content

“The Standards for Mathematical Content are a balanced combination of procedure and understanding. Expectations that begin with the word “understand” are often especially good opportunities to connect the practices to the content. Students who lack understanding of a topic may rely on procedures too heavily. Without a flexible base from which to work, they may be less likely to consider analogous problems, represent problems coherently, justify conclusions, apply the mathematics to practical situations, use technology mindfully to work with the mathematics, explain the mathematics accurately to other students, step back for an overview, or deviate from a known procedure to find a shortcut. In short, a lack of understanding effectively prevents a student from engaging in the mathematical practices” (CCSS, 2010).

- Common Core State Standards Initiative, 2010: Mathematics>Introduction>Standards for Mathematical Practice @ Corestandards.org

General Instructions

This map is a guide for curriculum planning and instruction, put together by your peers (Kindergarten teachers), based on your feedback.

Hands-On Math: Please remember that each math concept should be introduced with hands-on learning. Daily use of manipulatives should be encouraged. Management and procedures for manipulative use should be taught, practiced, modeled, and reviewed beginning in August and throughout the year. * See the TE for suggestions and lessons for concrete understanding and manipulative use.

Patterns. Although patterns are not taught explicitly, students are expected to recognize patterns in numbers.
For example: __, 6, 7; 3, __, 5; 7, 8, __

Continual review. We need to provide an ongoing review of previously taught concepts and skills.
EnVision's Daily Spiral Review works great!

Additional CC Lessons. Under the EnVision Lessons, there are some "CC" lessons. These lessons were added to match the common core to the first grade lessons we need to teach. These lessons are not found in the hard copies of the EnVision teacher books, however digital copies will be available through SuccessNet. Additionally, one hard copy of these materials will be available at each school.

Supplemental activities and lessons. Please remember, no program is perfect. Please supplement with additional hands-on activities to meet the needs of individual students as necessary.

Common Formative Assessments (CFA). CFA's are an accountability piece for you as a teacher. The district does not monitor them. CFA's are one form of assessment, and the data should be used to help guide and inform your instruction. *For example:* Which problem(s) did all students get correct? Which problem(s) did a lot of students miss? What concepts need to be re-taught? *The results of a CFA should not be used as a math "grade" for students.*

Kindergarten

Year-at-a-Glance 2011 - 2012

Month	MATH CONCEPTS	TOPICS from EnVision	CFA and CBM ASSESSMENT DATES
September 21 days	Sorting and Classifying 1. Same and Different 2. Sorting Position and Location 1. Emphasis on positional words	Topic 1 Topic 2	CBM Testing 9/5-9/13
October 17 days	Zero to Five 1. Counting, reading, writing, and making numbers 0-5	Topic 4	
November 16 days	Six to Ten 1. Counting, reading, writing, and making numbers 6-10	Topic 5	CFA #1 - Nov. 11 Topics 1, 2, 3, and 4
December 12 days	Comparing Numbers 1. Comparing numbers through 10 2. 1 and 2 more and fewer	Topic 6	
January 17 days	Geometry 1. Two dimensional shapes 2. Three dimensional shapes Measurement 1. Comparing and ordering length and weight	Topic 7 Topic 9	CBM Testing 11th -13 th CFA #2 - Jan. 31 Topics 5, 6, 7, and 9
February 20 days	Addition 1. Joining Groups 2. Fluently adds within 5	Topic 10	
March 18 days	Subtraction 1. Separating groups 2. Fluently subtracts within 5	Topic 11 Days 18	CFA #3 - Mar. 30 Topics 10 and 11
April 16 days	Large Numbers 1. Counting, reading, writing, and making numbers 11-19 2. Counting by 10's to 100	Topic 12 Days 16	
May 18 days	Graphing 1. Collecting data 2. Types of graphs	Topic 16	CFA #4 - May18 Topic 12 CBM Testing 14th - 16th

SEPTEMBER (20 days)

TOPIC 1 – SORTING AND CLASSIFYING (Topic Opener + 5 EnVision Lessons)

TOPIC 2 – POSITION AND LOCATION (Topic Opener + 6 EnVision Lessons)

COMMON CORE STANDARDS	ENVISION LESSON	VOCABULARY WORDS FOR THIS UNIT:
<p>Notes for this unit: Topic 1 items are foundational knowledge for the Kinder Common Core</p> <p>During Topic 1 keep <u>focus</u> of lesson and teacher language to sort and classify by attributes of shape, size and kind. Begin unit by building on what they know of sorting by color and then help them recognize attributes other than color. Sorting helps students learn the attributes of shapes and color is not an attribute of a shape.</p>	<p>Topic 1 Interactive Math Story</p> <p>Topic 1 Opener</p>	<p>Same (alike) Different Sort Does not belong Sorting rule</p>
K.MD.3	1-1 Same and Different	
K.MD.3	1-2 Sorting by One Attribute	
K.MD.3	1-3 Sorting the Same Set in Different Ways	
K.MD.3	1-4 Sorting by More than One Attribute	
K.MD.3 K.G.1	1-5 Problem Solving: Use Logical Reasoning	

SEPTEMBER (20 days) – cont.

TOPIC 2 – POSITION AND LOCATION (Topic Opener + 6 EnVision Lessons)

COMMON CORE STANDARDS	ENVISION LESSON	VOCABULARY WORDS FOR THIS UNIT:
<p>Notes for this unit: Topic 2: Envision vocabulary is not an exact match to Common Core Vocabulary. Please be sure to enhance lessons with vocabulary examples listed in common core objective. See Topic 2 Centers ideas on pp. 15G, 15H</p>	<p>Topic 2 Interactive Math Story (p. 15 l) Topic 2 Opener (p. 15) Topic 2 Math Project (p.16)</p>	Over Under On Inside Outside Top Middle Bottom Before After Left Right
K.G.1	2-1 Inside and Outside	
K.G.1	2-2 Over, Under, & On	
K.G.1	2-3 Top, Middle, & Bottom	
K.G.1	2-4 Before and After	
K.G.1	2-5 Left and Right	
K.G.1 K.OA.1 K.OA.2	2-6 Problem Solving: Act It Out	

OCTOBER (17 days)**TOPIC 4 – ZERO TO FIVE (Topic Open + 13 EnVision Lessons)**

COMMON CORE STANDARDS	ENVISION LESSON	VOCABULARY WORDS FOR THIS UNIT:
<p>Notes for this unit: Topic 4: Adapt each lesson as needed. Pay special attention to the Additional Activity Box and the extend activity found in each lesson. We found that these targeted the core objectives. Supplement other activity ideas as needed.</p> <p>Use Problem of the Day - Daily</p>	<p>Topic 4 Interactive Math Story (p. 49)</p> <p>Topic 4 Opener (p.49)</p> <p>Topic 4 Math Project (p.50)</p>	<p>Number words (one, two, etc.) Count Same as More Fewer Part Whole 1, 2 more 1, 2 fewer</p>
K.CC.4 K.CC.4.a, b, c K.CC.5	4-1 Counting 1, 2, & 3	
K.CC.4.b K.CC.5	CC-1 Counting 1, 2, & 3 in Different Arrangements	
K.CC.3, K.CC.4, K.CC.4.a, b, c, K.CC.5	4-2 Reading & Writing 1, 2, and 3	
K.CC.4 K.CC.4.a, b, c K.CC.5	4-3 Counting 4 & 5	
K.CC.4.b K.CC.5	CC-2 Counting 4 & 5 in Different Arrangements	
K.CC.3 K.CC.4 K.CC.4.a, b, c K.CC.5	4-4 Reading and Writing 4 & 5	
K.CC.3 K.CC.4 K.CC.4.a, b, c K.CC.5	4-5 Reading & Writing 0	
K.OA.3	4-6 Making 4 & 5	
K.OA.3	CC-3 Writing Number Sentences for 4 & 5	
K.CC.6	4-7 More, Fewer, and Same As	
K.CC.6	4-8 1 and 2 More	
K.CC.6	4-9 1 and 2 Fewer	
K.CC.5 K.CC.4.b	4-10 Problem Solving: Make an Organized List	

NOVEMBER (16 days)**TOPIC 5 – SIX TO TEN (Topic Open + 14 EnVision Lessons)**

COMMON CORE STANDARDS	ENVISION LESSON	VOCABULARY WORDS FOR THIS UNIT:
Notes for this unit:	Topic 5 Interactive Math Story (p.73 l) Topic 5 Opener (p.73)	Number words (six, seven, etc.) Order Forward Backward Graph
K.CC.4 K.CC.4.a, b, c K.CC.5	5-1 Counting 6 & 7	
K.OA.3	5-2 Making 6 & 7	
K.CC.3 K.CC.4 K.CC.4.a, b, c K.CC.5	5-3 Reading & Writing 6 & 7	
K.OA.3	CC-4 Writing Number Sentences for 6 & 7	
K.CC.4 K.CC.4.a, b, c K.CC.5	5-4 Counting 8 & 9	
K.OA.3	5-5 Making 8 & 9	
K.CC.4 K.CC.4.a, b, c K.CC.5	5-6 Reading & Writing 8 & 9	
K.OA.3	CC-5 Writing Number Sentences for 8 & 9	
K.CC.4 K.CC.4.a, b, c K.CC.5	5-7 Counting 10	
K.OA.3 K.OA.4	5-8 Making 10	
K.CC.3 K.CC.4 K.CC.4.a, b, c K.CC.5	5-9 Reading & Writing 10	
K.OA.3	CC-6 Writing Number Sentences for 10	
K.CC.2	5-10 Ordering Numbers on a Number	
K.MD.4	5-11 Problem Solving: Make a Graph	

DECEMBER (12 days)

TOPIC 6 – COMPARING NUMBERS (Topic Opener + 5 EnVision Lessons)

COMMON CORE STANDARDS	ENVISION LESSON	VOCABULARY WORDS FOR THIS UNIT:
Notes for this unit:	Topic 6 Interactive Math Story (p. 99) Topic 6 Opener (p. 99)	Greater Less
K.CC.6 K.CC.7	6-1 Comparing numbers through 10	
K.CC.6 K.CC.7	6-2 Comparing Numbers to 5	
K.CC.6 K.CC.7	6-3 Comparing Numbers to 10	
K.CC.6 K.CC.7 K.OA.1	6-4 1 and 2 More and Fewer	
K.CC.6	6-5 Problem Solving	

JANUARY (17 days)**TOPIC 7 – GEOMETRY** (Topic Opener + 9 EnVision Lessons)**TOPIC 9 – MEASUREMENT** (Topic Opener + 10 EnVision Lessons)

COMMON CORE STANDARDS	ENVISION LESSON	VOCABULARY WORDS FOR THIS UNIT:
<p>Notes for this unit:</p> <p>*P. 117A Math Background for teachers provides a "shape day" idea which would be another opportunity to re-teach positional vocabulary.</p> <p>*Shape Charades (p.113 F) and Dramatic Play Center (p. 113H) teaches to K.G.5</p>	<p>Topic 7 Interactive Math Story p. 113 I</p> <p>Topic 7 Opener Lesson on p. 113</p> <p>Topic 7 Math Project p. 114</p>	<p>Square</p> <p>Rectangle</p> <p>Circle</p> <p>Triangle</p> <p>Hexagon</p> <p>Sphere</p> <p>Cube</p> <p>Cone</p> <p>Cylinder</p>
K.G.1, K.G.2, K.G.3, K.G.4	7-1 Squares and Other Rectangles	
K.G.1 K.G.2 K.G.3 K.G.4	7-2 Circles and Triangles *2-D terms are only specifically mentioned in this lesson. Use terms interchangeably (i.e. two-dimensional, flat) during all lessons in this topic. *Intervention Activity teaches to K.G.5	
K.G.6	7-3 Making Shapes from Other Shapes	
K.G.4 K.G.6	CC-7 More Making Shapes from Other Shapes	
K.G.2	7-4 Same Size, Same Shape	
K.G.1 K.G.2 K.G.3	7-6 Solid Figures *3-D terms are only specifically mentioned in this lesson. Use terms <u>interchangeably</u> (i.e. three-dimensional, solid) during all lessons in this topic. *Extension p. 125 teaches K.G.6	
K.G.2, K.G.4	CC-8 Building with Solid Figures	
K.G.4	7-7 Comparing Solid Figures	
K.G.3, K.G.4, K.G.5	7-8 Flat Surfaces of Solid Figures	

JANUARY (17 days) – cont.**TOPIC 9 – MEASUREMENT (Topic Opener + 10 EnVision Lessons)**

COMMON CORE STANDARDS	ENVISION LESSON	VOCABULARY WORDS FOR THIS UNIT:
Notes for this unit:	Topic 9 Interactive Math Story (p.151 l) Topic 9 Opener (p.151) Math Project (p. 152)	Size Longest Measure As long as Tallest Shortest
K.MD.1 K.MD.2	9-1 Comparing and Ordering by Size	Large, larger, largest Small, smaller, smallest
K.MD.1 K.MD.2	9-2 Comparing by Length	Big, bigger, biggest Medium As short as
K.MD.1 K.MD.2	9-3 Ordering by Length	As tall as Longer than Shorter than
K.MD.1	9-4 Measuring Length	Taller than Holds more Holds less
K.MD.1 K.MD.2	9-5 Problem Solving: Try, Check and Revise	About the same Heavier
K.MD.1 K.MD.2	9-6 Comparing Capacities	Lighter Balance Weigh
K.MD.1	9-7 Measuring Capacity	Weighs more Weighs less
K.MD.1 K.MD.2	9-8 Comparing Weight	
K.MD.1	9-9 Measuring Weight	
K.MD.	9-10 Problem Solving: Try, Check, and Revise	

FEBRUARY (20 days)**TOPIC 10 – ADDITION** (Topic Opener + 7 EnVision Lessons)

COMMON CORE STANDARDS	ENVISION LESSON	VOCABULARY WORDS FOR THIS UNIT:
<p>Notes for this unit:</p> <p>In all lessons, under "guided practice" - there is a "Do You Understand" to help children process and express <i>why</i> they are doing things</p>	<p>Topic 10 Interactive Math Story (p.175 l)</p> <p>Topic 10 Opener (p.175)</p> <p>Topic 10 Math Project (p. 176)</p>	<p>Number story</p> <p>Join</p> <p>In all</p> <p>All together</p> <p>Addition sentence</p> <p>Add</p> <p>Plus sign</p> <p>Equal sign</p> <p>Sum</p>
<p>K.OA.1</p> <p>K.OA.2</p> <p>K.OA.5</p>	10-1 Stories About Joining	
<p>K.OA.1</p> <p>K.OA.2</p> <p>K.OA.5</p>	10-2 More Joining	
<p>K.OA.1</p> <p>K.OA.2</p> <p>K.OA.5</p>	10-3 Joining Groups	
<p>K.OA.1</p> <p>K.OA.2</p> <p>K.OA.5</p>	10-4 Using the Plus Sign	
<p>K.OA.1</p> <p>K.OA.2</p> <p>K.OA.5</p>	10-5 Finding Sums	
<p>K.OA.1</p> <p>K.OA.2</p> <p>K.OA.5</p>	10-6 Addition Sentences	
<p>K.OA.1</p> <p>K.OA.2</p> <p>K.OA.5</p>	10-7 Problem Solving: Draw a Picture	

MARCH (18 days)**TOPIC 11 – SUBTRACTION (Topic Opener + 7 EnVision Lessons)**

COMMON CORE STANDARDS	ENVISION LESSON	VOCABULARY WORDS FOR THIS UNIT:
Notes for this unit:	Topic 11 Interactive Math Story (p.193 l) Topic 11 Opener (p 193) Topic 11 Math Project (p. 194)	Subtraction sentence Take away Minus sign Separate Left Difference Subtract
K.OA.1 K.OA.2 K.OA.5	11-1 Stories About Separating	
K.OA.1 K.OA.2 K.OA.5	11-2 Stories About Take Away	
K.OA.1 K.OA.2 K.OA.5	11-3 Stories About Comparing	
K.OA.1 K.OA.2 K.OA.5	11-4 Using the Minus Sign	
K.OA.1 K.OA.2 K.OA.5	11-5 Finding Differences	
K.OA.1 K.OA.2 K.OA.5	11-6 Subtraction Sentences	
K.OA.1 K.OA.2 K.OA.5	11-7 Problem Solving: Act It Out	

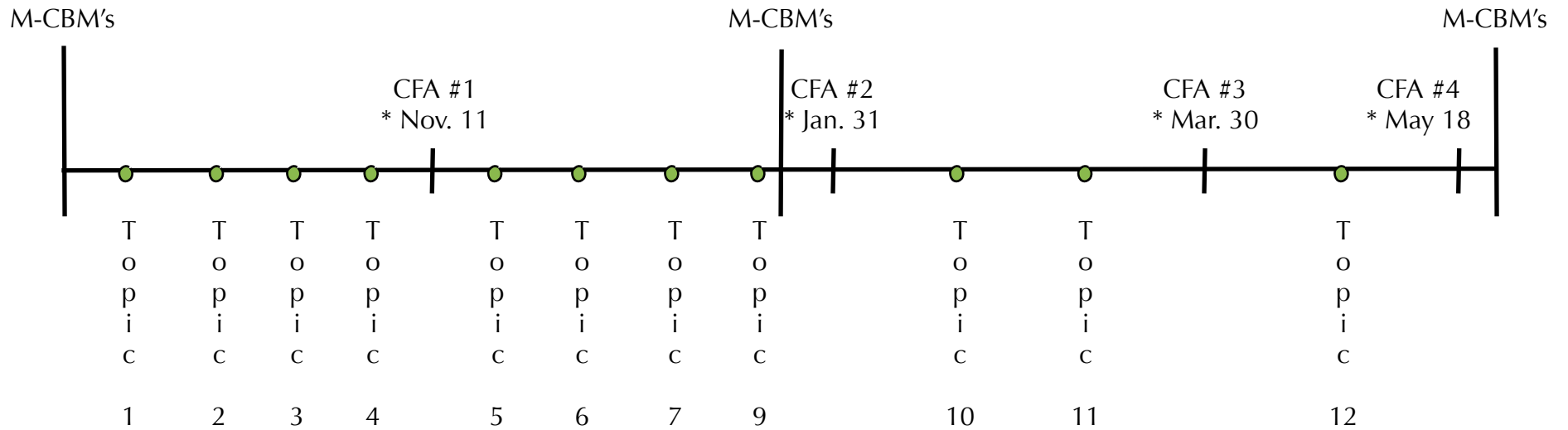
APRIL (16 days)**TOPIC 12 – LARGER NUMBERS** (Topic Opener + 15 EnVision Lessons)

COMMON CORE STANDARDS	ENVISION LESSON	VOCABULARY WORDS FOR THIS UNIT:
Notes for this unit:	Topic 12 Interactive Math Story (p.211 I)	Number words (11-20) – eleven, twelve, etc.) Hundred chart Row Column Count by Tens
K.CC.3 K.CC.4.a, b, c	12 -1 Counting, Reading, and Writing 11 & 12	
K.CC.3 K.CC.4.a, b, c	12-2 Counting, Reading and Writing 13, 14, & 15	
K.NBT.1	CC-9 Making 11, 12, and 13	
K.CC.3 K.CC.4.a, b, c	12-3 Counting, Reading and Writing 16 & 17	
K.NBT.1	CC-10 Making 14, 15, & 16	
K.CC.3 K.CC.4.a, b, c K.CC.5	12-4 Counting, Reading and Writing 18, 19 & 20	
K.NBT.1	CC-11 Making 17, 18 & 19	
K.NBT.1	CC-12 Creating Sets to 19	
K.NBT.1	CC-13 Parts of 11, 12, & 13	
K.NBT.1	CC-14 Parts of 14, 15, & 16	
K.NBT.1	CC-15 Parts of 17, 18, & 19	
K.CC.1 K.CC.2 K.CC.4.a, b, c	12-6 Counting to 100	
K.CC.1	12-7 Counting Groups of Tens	
K.CC.1	12-8 Patterns on a Hundred Chart	
K.CC.2	12-10 Problem Solving: Look for a Pattern	

MAY (18 days)**TOPIC 16 – GRAPHING (Topic Opener + 5 EnVision Lessons)**

COMMON CORE STANDARDS	ENVISION LESSON	VOCABULARY WORDS FOR THIS UNIT:
Notes for this unit:	Topic 16 Interactive Math Story (p.269 l) Topic 16 Opener (p.269) Topic 16 Math Project (p. 270)	Fewest Picture graph As many Bar graph
K.CC.6	16-1 As Many, More, and Fewer	
K.MD.3	16-3 Real Graphs	
K.MD.3	16-4 Picture Graphs	
K.MD.3	16-5 Bar Graphs	
K.MD.3	16-7 Problem Solving: Make a Graph	

Kindergarten Math Assessment Continuum



● = optional assessment

* Please submit quarterly CFA scores to your school principal by this date.

Kindergarten Envision Vocabulary by Topic and Math Standards

Topic Vocabulary	Math Standard
Topic 1 – Sorting and Classifying	
Same (alike), different, sort, does not belong, sorting rule	K.MD – classify objects into given categories, sort categories **reinforce the count in each group
Topic 2 – Position and Location	
Over, under, on, inside, outside,	K.G – relative positions
Top, middle, bottom,	
Before, after,	
Left, right	
Topic 3 - Patterns	
Repeat, pattern, growing pattern	
Topic 4 – Zero to Five	
Number words	
Count	K.CC 4a, b – one to one counting
Same as	K.CC 4b – last number said is number
More, fewer	K.CC 6, K.CC 7 – compare 2 numbers
Part	
1, 2 more	K.CC 4c – each successive #, is 1 more
1, 2 fewer	
Topic 5 – Six to Ten	
Number words	
Number line	K.CC 7 – compare 2 numbers
order	
Forward, backward	
graph	
Topic 6 – Comparing Numbers	
Greater, less	K.CC 6,7
Topic 7 - Geometry	
Square, rectangle, circle, triangle, Sphere, cube, cone, cylinder	K.G – add hexagon K.G2 – name shape regardless of size or orientation
Matching parts, corner, edge, side, roll, stack, slide, flat surface	KG 6, KG 4 – compare 2-D and 3-D shapes, compose simple shapes to make larger shapes
Topic 8 – Fractions and Ordinals	
Equal parts	
Half/halves	
First, second, third...tenth	

Topic 9 - Measurement	
Size, longest, measure, as long as, tallest, shortest, large/larger/largest, small/ smaller/smallest, big/bigger/biggest, medium, as short as, as tall as, longer than, shorter than, taller than, hold more, holds less, about the same, heavier, lighter, balance, weigh, weighs more, weighs less	K.MD 1 describe using length or weight K.MD 2 compare 2 objects to see what has "more of"/"less of"
Most, least, estimate, check	
Topic 10 - Addition	
Number story, join, in all, altogether, addition sentence, add, plus sign, equal sign, sum	K.OA 1-5 – word problems Add up to 10, add fluently within 5
Topic 11 - Subtraction	
Subtraction sentence, take away, minus sign, separate, left, difference, subtract	K.OA 1-5 – word problems Subtract within 10, subtract fluently within 5
Topic 12 – Larger Numbers	
Numbers 11-20	K.CC 3 – write #'s 0-20 K.CC 5 – count out objects to 20 K.NBT – place value foundation with numbers 11-20. (e. g. $18 = 10 + 8$)
Odd/even	
Hundred chart, row, column	K.CC 1 – count by 1s/10s to 100
Skip counting	
Count by 2s, count by 5s	
Count by 10s	K.CC 1 – count by 1s/10s to 100
Topic 16 – Graphing	
Fewest	
Survey	
Picture graph	
Real graph	
As many	
Bar graph	
More likely	
Less likely	

The Kindergarten Core and MORE Instruction Checklist

<p>The CCSS Standard: The Envision Lesson:</p>	
<p>EXPLICIT INSTRUCTION I do it, We do it, Y'all do it, You do it</p>	<p>ENGAGEMENT All Students Saying, Writing, Doing</p>
<p>PROACTIVE PLANNING</p>	<p>VOCABULARY WORDS</p>
<p>The following questions should be considered for each part of the lesson:</p> <ul style="list-style-type: none"> - What are the predictable failures for this lesson? (conceptually and behaviorally) - How will you prevent these failures? - What will you do to maintain consistency? - How will you know if it is working? 	
<p> <input type="checkbox"/> cumulative review <input type="checkbox"/> higher-order thinking, ask why <input type="checkbox"/> have students visualize, draw, model <input type="checkbox"/> real-world contexts <input type="checkbox"/> math vocabulary <input type="checkbox"/> milk the data <input type="checkbox"/> incorporate measurement <input type="checkbox"/> number sense </p>	
<p>ANTICIPATORY SET (5 MINUTES)</p>	
<p>Choose from the many options:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Review What You Know <input type="checkbox"/> Interactive Math Stories <input type="checkbox"/> Math Journaling <input type="checkbox"/> Spiral Review <input type="checkbox"/> Problem of the Day 	<ul style="list-style-type: none"> <input type="checkbox"/> Choral Responses <input type="checkbox"/> Partner Responses <input type="checkbox"/> Written Responses (whiteboards) <input type="checkbox"/> Random call on students
<p>BUILDING A FOUNDATION (5 MINUTES)</p>	
<p><i>The Language of Math:</i> Vocabulary instruction</p> <ol style="list-style-type: none"> 1- How will you explicitly teach new vocabulary? 2- How will you provide multiple opportunities for vocabulary to be used in context? 	<ul style="list-style-type: none"> <input type="checkbox"/> Choral Responses <input type="checkbox"/> Partner Responses <input type="checkbox"/> Random call on students

WHOLE GROUP INSTRUCTION: Concrete		(5-10 MINUTES)
<p><i>Develop the Concept: Interactive Learning (Hands-on)</i></p> <ol style="list-style-type: none"> 1- What materials/manipulatives will you need? 2- Will each student have enough materials to model the problems? -If they do not, will you have them pair up or adjust the problems? 3- Where will students record their work during this phase of the lesson? 4- How will you check for understanding during this phase of the lesson? 5- Will you use the <i>Extend</i>? 6- Will you use the <i>Link to Investigations</i>? 		<input type="checkbox"/> Choral Responses <input type="checkbox"/> Partner Responses <input type="checkbox"/> Written Responses (whiteboards) <input type="checkbox"/> Random call on students
SCAFFOLDED INSTRUCTION: Representational		(5-10 MINUTES)
<p><i>Develop the Concept: Visual</i></p> <p>The <i>Visual Learning Bridge</i>, at the top of each lesson, is critical to connecting the Concrete to the Representational and then to the Abstract. Look for <i>Prevent Misconceptions</i>.</p> <p>Choose one option:</p> <input type="checkbox"/> <i>Visual Learning Animation</i> (on-line or CD) <input type="checkbox"/> Document camera <ol style="list-style-type: none"> 1- Check for understanding during the <i>Guided Practice</i>. 2- Where will students record their work? 		<input type="checkbox"/> Choral Responses <input type="checkbox"/> Partner Responses <input type="checkbox"/> Written Responses (whiteboards)
INDEPENDENT PRACTICE: ABSTRACT		(5-10 MINUTES)
<p><i>Independent Practice and Problem Solving</i></p> <ol style="list-style-type: none"> 1- Which problems will you assign? 2- Where will students record their work? 3- Will you collect, grade and record the independent practice? 4- How will you check for understanding? 		<input type="checkbox"/> Choral Responses <input type="checkbox"/> Partner Responses <input type="checkbox"/> Written Responses (whiteboards) <input type="checkbox"/> Random call on students

FORMATIVE ASSESSMENT

(5 MINUTES)

Concept Understanding

- PLC/Grade-Level common formative assessment
- Quick Check* (in *Teacher Resource Masters*)
- Writing to Explain*

Formative Assessment Tools

- Topic tests* (online or in text)
- CBM-Math
- PLC/Grade-Level common formative assessment
- Other assessment tool

End of each Quarter: *District Common Formative Assessment (CFA)*

*Math Standards and Envision Lessons***Grade K Overview****Counting and Cardinality**

- Know number names and the count sequence.
- Count to tell the number of objects.
- Compare numbers.

Operations and Algebraic Thinking

- Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

Number and Operations in Base Ten

- Work with numbers 11–19 to gain foundations for place value.

Measurement and Data

- Describe and compare measurable attributes.
- Classify objects and count the number of objects in categories.

Geometry

- Identify and describe shapes.
- Analyze, compare, create, and compose shapes.

Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Counting and Cardinality K.CC

Know number names and the count sequence.

1. Count to 100 by ones and by tens.
Envision Lessons 12-6, 12-7
2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
Envision Lessons 12-8
3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).
Envision Lessons 4-2, 4-4, 4-5, 5-3, 5-6, 5-9, 12-1, 12-2, 12-3, 12-4

Count to tell the number of objects.

4. Understand the relationship between numbers and quantities; connect counting to cardinality.
 - a) 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.
Envision Lessons topic 4 – 5, 12-1 to 12-4
 - b) 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.
Envision Lessons counting in topics 4, 5, and 12.
 - c) Understand that each successive number name refers to a quantity that is one larger.
Envision Lessons 4-8
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.
Envision Lessons topics 4, 5, and 12-1 to 12-4

Compare numbers.

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.¹
Envision Lessons Topic 6
7. Compare two numbers between 1 and 10 presented as written numerals.
Envision Lessons topic 6, reinforce just looking at 2 numbers without manipulatives. 5-10 (using number line)

Operations and Algebraic Thinking K.OA

Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

Envision Lessons 4-6, 5-2, 5-5, 5-8, topic 10 and 11

1. Represent addition and subtraction with objects, fingers, mental images, drawings², sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.
2. Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
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 $5 = 4 + 1$).
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.
5. Fluently add and subtract within 5.

¹ Include groups with up to ten objects.

² Drawings need not show details, but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the Standards.)

Number and Operations in Base Ten K.NBT

Work with numbers 11–19 to gain foundations for place value.

Envision Lessons 12-1 to 12-4

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 (e.g., $18 = 10 + 8$); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.

Measurement and Data K.MD

Describe and compare measurable attributes.

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

Envision Lessons Topic 9

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.

Envision Lessons Topic 9

Classify objects and count the number of objects in each category.

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).

Envision Lessons Topic 1 – reinforce the counting objects

Geometry K.G

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

1. Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.

Envision Lessons Topic 2 positions

2. Correctly name shapes regardless of their orientations or overall size.

Envision Lessons 7-1, 7-2, 7-6

3. Identify shapes as two-dimensional (lying in a plane, “flat”) or three- dimensional (“solid”).

Envision Lessons 7-6, 7-7, 7-8

Analyze, compare, create, and compose shapes.

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).

Envision Lessons 7-4, 7-6, 7-7

5. Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.

Envision Lessons 7-9

6. Compose simple shapes to form larger shapes. For example, “Can you join these two triangles with full sides touching to make a rectangle?”

Envision Lessons 7-3

3 Limit category counts to be less than or equal to 10.