

Grade K Curriculum Map

Unit/Timeframe: Numbers Through 10 (Topics 1-4)* Approximately 9 ½ weeks for conceptual unit		Grade Level: Kindergarten
Topic 1: One to Five		
Additional Notes		
<p>*Please consider these four Topics as a unit. You may wish to be flexible with the sequence of the lessons and/or Topics throughout the unit (e.g. teaching lessons from within this unit – but from different Topics - together or in a different order).</p> <ul style="list-style-type: none"> For reading and writing numerals (Lessons 1-3 and 1-6), consider using the district handwriting program instead of enVisionMath. 		
Content Standards		2011 MA Curriculum Framework for Literacy
K.CC.1 Count to 100 by ones K.CC.2 Count forward from a given number K.CC.3 Write numbers from 0-20 K.CC.4 Connect counting to cardinality K.CC.5 Count to answer “how many?”		N/A
Essential Questions	Knowledge/Concepts	Skills
How can numbers from 1 to 5 be counted, read, represented, and written?	Understand quantity and how to count objects in different arrangements 1-5 Understand that numerals represent specific amounts	Students will be able to : Count and represent quantities 1- 5. Recognize numerals and quantities 1-5. Read and write numerals 1-5.

Common Resources	Common Assessments
<p>enVisionMath Program: <i>Math Background</i> page 1---counters, subitizing Topic Centers 1E-1F Center cards 4c <i>Additional Activities, Show Me</i> 4A Sticker dots arrangement 12A <i>Intervention Activities</i></p> <p>Additional Resources:</p> <p>Play-Doh Wikki-Stix Dot patterns—subitizing, dominoes, dice Sand/salt trays for number writing Lots of practice with concrete objects Finger representations making a number with two hands— “show me another way” Math Journals Interactive Math Notebooks Math Literature</p>	<p><i>Quick Check</i> <i>Practice Master</i></p> <p>Informal Assessments: White boards Anecdotal assessments Journals/Notebooks Frequent observations</p>
Vocabulary	
<p>Count, one, two, three, four, five</p>	

Unit/Timeframe: Numbers Through 10 (Topics 1-4)* Approximately 9 ½ weeks for conceptual unit		Grade Level: Kindergarten
Topic 2: Comparing and Ordering 0-5		
Additional Notes		
<p>*Please consider these four Topics as a unit. You may wish to be flexible with the sequence of the lessons and/or Topics throughout the unit (e.g. teaching lessons from within this unit – but from different Topics - together or in a different order).</p>		
Content Standards		2011 MA Curriculum Framework for Literacy
K.CC.3 Write numbers from 0-20 K.CC.4 Connect counting to cardinality (emphasis on 4c – successive numbers are greater amounts) K.CC.6 &7 Compare numbers as numerals and sets <ul style="list-style-type: none"> • <u>Ordinal</u> numbers are not part of the Massachusetts Standards 		N/A
Essential Questions	Knowledge/Concepts	Skills
How can numbers from 0-5 be compared and ordered?	Understand that if you compare two groups of objects and the number of objects match, the groups have the same/an equal number of objects. If one group has items left over, that group has more. The other group has fewer objects. Understand that ZERO is a number	Students will be able to: Order and compare numerals and quantities 0-5. Read and write the number 0. Recognize 1 or 2 more, 1 or 2 less/fewer (also use related language variations:

	<p>that tells how many objects there are when there are none</p> <p>Understand that there is a specific order to the set of whole numbers</p> <p>Misconceptions: <i>Fewer</i> is a vocabulary word that is difficult for students; incorporate <i>less</i> as a synonym</p> <p>You can count objects from right to left and left to right – either way will get you the same quantity. The same applies for using ordinal numbers.</p>	<p><i>greater than, less than, equal to/same as).</i></p>
Common Resources		Common Assessments
<p>enVisionMath Program: 21B-21F Choose activities based on specific need</p> <p>Consider using <i>Additional Activity</i> (e.g. 24A) and <i>Intervention</i> (e.g. 24C) for centers <i>Intervention Activities</i></p> <p>Additional Resources: <i>Handwriting without Tears</i> Movement activities <i>Compare game</i> from <i>Investigations</i> math program Math Journals</p>		<p><i>Quick Check</i> <i>Practice Master</i></p> <p>Informal Assessments: White boards Anecdotal assessments Journals/Notebooks Frequent observations</p>

<p>Interactive Math Notebooks Math Literature <i>AddVantage Math Recovery</i> (AVMR) Activities WEB SITE: AVMR Resources for Number Sense and Computation – http://learn.district196.org/course/view.php?id=1482</p> <p><i>Common Core Progress</i></p> <p>Math Reads: <i>Rooster’s Off to See the World</i></p>	
Vocabulary	
Zero, more, more than, fewer, less, same as, equal to, order, compare	

<p>Unit/Timeframe: Numbers Through 10 (Topics 1-4) * Approximately 9 ½ weeks for conceptual unit</p> <p>Topic 3: Six to Ten</p>	<p>Grade Level: Kindergarten</p>
Additional Notes	
<p>*Please consider these four Topics as a unit. You may wish to be flexible with the sequence of the lessons and/or Topics throughout the unit (e.g. teaching lessons from within this unit – but from different Topics - together or in a different order).</p>	

Content Standards		2011 MA Curriculum Framework for Literacy
K.CC.3 Write numbers from 0-20 K.CC.4 Connect counting to cardinality		N/A
Essential Questions	Knowledge/Concepts	Skills
How can numbers from 6 to 10 be counted, read, represented, and written?	Understand quantity and how to count objects in different arrangements 6-10 Understand that numerals represent specific amounts	Students will be able to: Count and represent quantities 6-10. Recognize numerals and quantities 6-10. Read and write numerals 6-10. Solve problems by identifying growing patterns and predicting what comes next.
Common Resources		Common Assessments
enVisionMath Program: <i>Math Background</i> 45A and 45B Topic Center 45E and 45F <i>Intervention Activities</i> Additional Resources: Handwriting without tears numeral writing Dot pattern(regular and irregular) for subitizing Tactile experiences for writing Use 10 frame vs 5 frame		<i>Quick Check</i> <i>Practice Master</i> Informal Assessments: White boards Anecdotal assessments Journals/Notebooks Frequent observations

Roll and Record game from Investigations
Counting jars (bags, boxes, etc.)
Post numbers 1-10 in classroom
Rekenrek
Finger patterns
More pictures for “how many” practice
Collections to practice counting
More opportunities to make set w/partner(count and check)
Math Journals
Interactive Math Notebooks
Math Literature
AddVantage Math Recovery (AVMR) Activities
WEB SITE: **AVMR Resources for Number Sense and Computation** –
<http://learn.district196.org/course/view.php?id=1482>

Common Core Progress

Math Reads:

Ten, Nine, Eight
Handa’s Hen

Vocabulary

Six, seven, eight, nine, ten

Unit/Timeframe: Numbers Through 10 (Topics 1-4)* Approximately 9 ½ weeks for conceptual unit		Grade Level: Kindergarten
Topic 4: Comparing and Ordering Numbers		
Additional Notes		
<p>*Please consider these four Topics as a unit. You may wish to be flexible with the sequence of the lessons and/or Topics throughout the unit (e.g. teaching lessons from within this unit – but from different Topics - together or in a different order).</p> <ul style="list-style-type: none"> • Lesson 4-10: The content of the lesson does not match the specified objective and Massachusetts Curriculum Framework for Mathematics (2011). The lesson may be omitted. • In order to address K.CC.7 on comparing written numerals, supplement with <i>Common Core Progress Lesson 14</i>. 		
Content Standards		2011 MA Curriculum Framework for Literacy
K.CC.3 Write numbers from 0-20 K.CC.4 Connect counting to cardinality (emphasis on 4c – successive numbers are greater amounts) K.CC.6 & 7 Compare numbers as numerals and sets <ul style="list-style-type: none"> • Ordinal numbers are <u>not</u> part of the Massachusetts Curriculum Framework for Mathematics (2011) 		N/A
Essential Questions	Knowledge/Concepts	Skills
How can numbers from 0-10 be compared and ordered?	Understand that if you compare two groups of objects and the number of objects match, the groups have the same number of objects. If one group has items left over, that group has more. The other group has fewer	Students will be able to: Order and compare numerals and quantities 0-10. Count and compare to find 1 or 2 <i>more</i> or

	<p>objects.</p> <p>Understand that there is a specific order to the set of whole numbers</p> <p>Understand that numbers can be shown by a unique point on the number line</p> <p>Misconceptions:</p> <p>Students may think the number line starts at 1</p> <p>Students may not use the word “more” to describe greater than or “fewer” to describe less</p>	<p><i>fewer /less.</i></p> <p>Solve problems using objects.</p>
Common Resources		Common Assessments
<p>enVisionMath Program:</p> <p><i>Intervention Activities</i></p> <p><i>Math Background</i></p> <p><i>Additional Activities</i></p> <p>Additional Resources:</p> <p>Card games (Ace-10 with no face cards)</p> <p>Dice</p> <p>Spinner Activities</p> <p>Sequencing activities</p>	<p><i>Quick Check</i></p> <p><i>Practice Master</i></p> <p>Informal Assessments:</p> <p>White boards</p> <p>Anecdotal assessments</p> <p>Journals/Notebooks</p> <p>Frequent observations</p> <p>Number cards to put in order</p> <p>Show on fingers numbers that are more or fewer than card shown</p> <p>Floor number line</p>	

Ten frames
Anchor charts
Math Journals
Interactive Math Notebooks
Math Literature
AddVantage Math Recovery (AVMR) Activities
WEB SITE: **AVMR Resources for Number Sense and Computation** –
<http://learn.district196.org/course/view.php?id=1482>

Treasure Hunt games
One More, One Less game
Math Start books
Common Core Progress

Vocabulary

More, more than, fewer, less, same as, equal to, order, compare, forward, backward, number line

Unit/Timeframe: Shapes and Space (Topics 14, 13, 15, & 16)* Approximately 3 ½ weeks for conceptual unit Topic: 14 Identifying and Describing Shapes	Grade Level: Kindergarten
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Additional Notes

***Please consider these four Topics as a unit. You may wish to be flexible with the sequence of the lessons and/or Topics throughout the unit (e.g. teaching lessons from within this unit – but from different Topics - together or in a different order).**

- You will need to supplement for the names of three-dimensional shapes (cubes, cones, cylinders, and spheres).
- Lesson 14-6** does not match the indicated objective and Massachusetts Curriculum Framework for Mathematics (2011) standard, which requires that students classify shapes as two-dimensional or three-dimensional. **Before teaching this lesson,** teachers should instruct the students on the definitions: *two-dimensional* and *three-dimensional* shapes. **Common Core Progress Lesson 47** can be used to address this. **Lesson 14-6** better aligns to **K.G.2**, which entails naming shapes
- Lesson 14-7** is an **optional lesson** as this is a confusing topic that does not completely align to any particular Massachusetts Curriculum Framework for Mathematics (2011) Kindergarten standard. It can be used as enrichment, as needed.

Content Standards	2011 MA Curriculum Framework for Literacy
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K.G.2. Correctly name shapes regardless of their orientations or overall size. K.G.3. Identify shapes as two-dimensional or three-dimensional	N/A
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Essential Questions	Knowledge/Concepts	Skills
How can we identify and describe two-dimensional and/or three dimensional shapes.	Understand that some shapes have sides and corners and some do not Understand that some shapes are two dimensional (flat) and some are three dimensional (solid)	Students will be able to: Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).

	<p>Misconceptions</p> <p>Students may think that shapes orientation and overall size may change the name of the shape</p> <p>Students may be confused with the interchanging use of two-dimensional/flat and three-dimensional/solid terms if done before students have a firm understanding of one vocabulary word or the other</p>	
Common Resources		Common Assessments
<p>enVisionMath Program:</p> <p><i>Intervention Activities</i></p> <p><i>Math Background</i></p> <p><i>Additional Activities</i></p> <p>Additional Resources:</p> <p>Card games (Ace-10 with no face cards)</p> <p>Dice</p> <p>Spinner Activities</p> <p>Anchor charts</p> <p>Math Journals</p> <p>Interactive Math Notebooks</p> <p>Math Literature</p> <p><i>Common Core Progress</i></p>	<p><i>Quick Check</i></p> <p><i>Practice Master</i></p> <p>Informal Assessments:</p> <p>White boards</p> <p>Anecdotal assessments</p> <p>Journals/Notebooks</p> <p>Frequent observations</p>	

Math Reads: <i>Cubes, Cones , Cylinder & Spheres</i> <i>Perfect Square</i> <i>Bear in a Square</i>	
Vocabulary	
Squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, spheres, two-dimensional, flat, three-dimensional, solid, sides, corners.	

Unit/Timeframe: Approximately 3 ½ weeks for conceptual unit	Shapes and Space (Topics 14, 13, 15, & 16)*	Grade Level: Kindergarten
Topic 13: Sorting, Classifying, Counting, and Categorizing Data		
Additional Notes		
<p>*Please consider these four Topics as a unit. You may wish to be flexible with the sequence of the lessons and/or Topics throughout the unit (e.g. teaching lessons from within this unit – but from different Topics - together or in a different order).</p> <ul style="list-style-type: none"> Insert Lesson 9-9 as one of your first lessons for Data. This is a <i>Problem-Solving</i> lesson that has been included in a later Topic, but addresses <u>building graphs</u>. 		
Content Standards		2011 MA Curriculum Framework for Literacy
K.MD.3 Classify objects into given categories K.G.1 Describe objects in the environment using the names of shapes using relative positions (above, below, beside, in front of, behind, and next to)		N/A

Essential Questions	Knowledge/Concepts	Skills
<p>What are different ways objects can be grouped?</p>	<p>Understand that attributes can be used to compare, sort, and group objects of the same set in different ways</p> <p>Understand that a set of objects can be sorted according to a combination of attributes</p> <p>Understand that problems can be solved by reasoning</p> <p>Understand that data can be collected and represented using different types of graphs</p>	<p>Students will be able to:</p> <p>Compare and sort objects in different ways using different attributes.</p> <p>Answer questions using a graph.</p>
Common Resources		Common Assessments
<p>enVisionMath Program: <i>Intervention Activities</i> <i>Math Background</i> <i>Additional Activities</i></p> <p>pattern blocks attribute blocks</p> <p>Additional Resources:</p> <p>Anchor charts Math Journals</p>		<p><i>Quick Check</i> <i>Practice Master</i></p> <p>Informal Assessments: White boards Anecdotal assessments Journals/Notebooks Frequent observations Number cards to put in order</p>

Interactive Math Notebooks Math Literature <i>Math Start</i> books <i>Common Core Progress</i> Math Reads: <i>Snowballs</i>	
Vocabulary	
<i>Attribute, same, different, sort, sorting rule, does not belong, real graph, picture graph</i>	

Unit/Timeframe: Approximately 3 ½ weeks for conceptual unit Topic 15: Position and Location of Shapes	Shapes and Space (Topics 14, 13, 15, & 16)*	Grade Level: Kindergarten
Additional Notes		
<p>*Please consider these four Topics as a unit. You may wish to be flexible with the sequence of the lessons and/or Topics throughout the unit (e.g. teaching lessons from within this unit – but from different Topics - together or in a different order).</p> <ul style="list-style-type: none"> Teacher will need to supplement for vocabulary words <i>not included</i> in the <i>enVisionMath</i> materials (suggested terms include: <i>top, middle, bottom, on, in, against, across, around, over, in between</i>). 		
Content Standards		2011 MA Curriculum Framework for Literacy

K.G.1 Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, beside, in front of, behind, and next to.		N/A
Essential Questions	Knowledge/Concepts	Skills
How can the positions and location of shapes be described by using positional words?	Understand the specific definition of position terms	Students will be able to: Accurately use positional words.
Common Resources		Common Assessments
enVisionMath Program: <i>Intervention Activities</i> <i>Math Background</i> <i>Additional Activities</i> Additional Resources: Card games (Ace-10 with no face cards) Dice Puppets Students (as models) Classroom fixtures & furniture (e.g. bookshelves, bulletin boards, tables, etc.)		<i>Quick Check</i> <i>Practice Master</i> Informal Assessments: White boards Anecdotal assessments Journals/Notebooks Frequent observations Quick check (video quiz)

<p>Spinner Activities Anchor charts Math Journals Interactive Math Notebooks Math Literature <i>Common Core Progress</i></p> <p>Math Reads: <i>Over, Under, & Through</i></p>	
Vocabulary	
<p>Above, below, beside, in front of, behind, next to, left, right, inside, outside, top, middle, bottom, in between, on, in, against, across, around, over.</p>	

<p>Unit/Timeframe: Shapes and Space (Topics 14, 13, 15, & 16)* Approximately 3 ½ weeks for conceptual unit</p> <p>Topic 16: Analyzing, Comparing, and Composing Shapes</p>	<p>Grade Level: Kindergarten</p>
Additional Notes	

***Please consider these four Topics as a unit. You may wish to be flexible with the sequence of the lessons and/or Topics throughout the unit (e.g. teaching lessons from within this unit – but from different Topics - together or in a different order).**

- **Omit Lesson 16-3.** It is unnecessary to teach roll, stack, and slide, as the movement concepts are not included in the Massachusetts Curriculum Framework for Mathematics (2011).
- **Lesson 16-1** would be enhanced by making this concrete - using attribute blocks and/or pattern blocks – and using actual Geoboards (not just the pictures from the *enVisionMath* materials. **Common Core Progress Lesson 46** is a good supplement for this concept.

Content Standards		2011 MA Curriculum Framework for Literacy
<p>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 and other attributes.</p> <p>K.G.5 Model shapes in the world by building shapes from components and drawing shapes.</p> <p>K.G.6 Compose simple shapes to form larger shapes.</p>		N/A
Essential Questions	Knowledge/Concepts	Skills
How can shapes be analyzed, compared, created, and composed?	<p>Understand that shapes can be compared depending on whether they are 2-dimensional or 3-dimensional</p> <p>Understand that shapes can be combined to build other shapes</p>	<p>Students will be able to:</p> <p>Model shapes from the real world.</p> <p>Compose larger shapes from simpler shapes.</p> <p>Compare and contrast 2-dimensional and 3-dimensional shapes based on their attributes.</p>

Common Resources	Common Assessments
<p>enVisionMath Program:</p> <p><i>Intervention Activities</i> <i>Math Background</i> <i>Additional Activities</i></p> <p>Additional Resources:</p> <p>Wikki Stix Mag formers Toothpicks Play-Doh/Clay Marshmallows Popsicle sticks Solid Shape sets Attribute blocks Pattern Blocks Various real-world boxes and containers Anchor charts Math Journals Interactive Math Notebooks Math Literature <i>Common Core Progress</i></p>	<p><i>Quick Check</i> <i>Practice Master</i></p> <p>Informal Assessments: White boards Anecdotal assessments Journals/Notebooks Frequent observations – using manipulatives from <i>Additional Resources</i> (see left column here) Quick check (video quiz)</p>
Vocabulary	
<p><i>Vertices</i> (corners), number of sides, faces</p> <p>Reinforce vocabulary from Topic 14 (Squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, spheres, two-dimensional, flat, three-dimensional, solid, sides, corners)</p>	

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Unit/Timeframe: Topic 5: Numbers to 20 Approximately 3 ½ weeks	Grade Level: Kindergarten
Additional Notes	
<ul style="list-style-type: none"> Consider using an extra day to reinforce Lesson 5-4, and further practicing the concept of forward counting for the rest of the school year. 	
Content Standards	2011 MA Curriculum Framework for Literacy
K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1). K.CC.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). K.CC.4b 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.	N/A

Essential Questions	Knowledge/Concepts	Skills
How can numbers to 20 be counted, read, represented and written?	<p>Understand quantity and how to count objects in different arrangements 11-20</p> <p>Understand that numerals represent specific amounts</p> <p>Misconceptions: Reading place value backward (e.g. reading 13 as “31”)</p>	<p>Students will be able to:</p> <p>Count and represent quantities 11-20.</p> <p>Recognize numerals and quantities 11-20.</p> <p>Read and write numerals 11-20.</p> <p>Solve problems by identifying growing patterns and predicting what comes next.</p>
Common Resources		Common Assessments
<p>enVisionMath Program: <i>Intervention Activities</i> <i>Math Background</i> <i>Additional Activities</i></p> <p>Additional Resources:</p> <p>Card games Dice Spinner Activities Sequencing activities</p>		<p><i>Quick Check</i> <i>Practice Master</i></p> <p>Informal Assessments: White boards Anecdotal assessments Journals/Notebooks Frequent observations Quick check (video quiz) Number cards to put in order</p>

Ten frames
Anchor charts
Math Journals
Interactive Math Notebooks
Math Literature
AddVantage Math Recovery (AVMR) Activities
WEB SITE: **AVMR Resources for Number Sense and Computation-**
<http://learn.district196.org/course/view.php?id=1482>
Math Start books
Common Core Progress
Sand/salt trays
YouTube - *Numbers in the Teens*(songs/videos)
Dot patterns
Play-Doh number mats

Math Reads:
Teeth, Tails, & Tentacles
The First Day of Winter
Counting Cockatoos
Bears at the Beach: Counting 10 to 20

Vocabulary

Eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, twenty, count

Unit/Timeframe: Approximately 3 weeks		Topic 7: Understanding Addition	Grade Level: Kindergarten
Content Standards		2011 MA Curriculum Framework for Literacy	
<p>K.OA.1 Represent addition and subtraction with objects, fingers, mental images, drawings.</p> <p>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, sounds (like claps), acting out situations, verbal explanations, expressions, or equations.</p> <p>K.OA.5 Fluently add and subtract within 5.</p>		N/A	
Essential Questions	Knowledge/Concepts	Skills	
How can numbers be joined to show how many in all?	<p>Understand joining parts (groups) to make a whole</p> <p>Understand the role of the plus sign</p> <p>Understand that plus and equal signs in number sentences can be used to show parts of a whole</p> <p>Misconceptions: Associating <i>and</i> with the plus sign – no matter the scenario</p> <p>Commutative property of addition: Careful - $5 = 3 + 2$ and $3 + 2 = 5$ are not demonstrative of the commutative property. *The two addends (3 and 2) need to be</p>	<p>Students will be able to:</p> <p>Join groups of numbers to find a whole.</p> <p>Identify the plus sign and equal sign.</p>	

	switched.	
Common Resources		Common Assessments
<p>enVisionMath Program: <i>Intervention Activities</i> <i>Math Background</i> <i>Additional Activities</i></p> <p>Additional Resources:</p> <p>Card games Dice Rekenreks Unifix cubes Pony-bead & pip cleaner bracelets Two-sided counters Spinner Activities Sequencing activities Ten frames Anchor charts Math Journals Interactive Math Notebooks Math Literature <i>AddVantage Math Recovery (AVMR) Activities</i> WEB SITE: AVMR Resources for Number Sense and Computation – http://learn.district196.org/course/view.php?id=1482</p> <p><i>Math Start</i> books <i>Common Core Progress</i> Dot patterns</p>		<p><i>Quick Check</i> <i>Practice Master</i></p> <p>Informal Assessments: White boards Anecdotal assessments Journals/Notebooks Frequent observations Number cards to put in order</p>

Play-Doh number mats Dominos Math Reads: <i>Ten on the Sled</i> <i>Ten Little Fish</i> <i>One Monkey Too Many</i>	
Vocabulary	
Number story, join, in all, all together, and, is, add, plus sign, equal sign, sum, addition sentence	

Unit/Timeframe: Approximately 3 weeks	Topic 8: Understanding Subtraction	Grade Level: Kindergarten
Additional Notes		
<ul style="list-style-type: none"> Lesson 8-3 incorporates the word <i>fewer</i>, which is not from the Massachusetts Curriculum Framework for Mathematics (2011). Be sure to include the word <i>less</i>. 		
Content Standards		2011 MA Curriculum Framework for Literacy
K.OA.1 Represent addition and subtraction with objects, fingers, mental images, drawings. 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. , sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.		N/A

K.OA.5 Fluently add and subtract within 5.		
Essential Questions	Knowledge/Concepts	Skills
<p>How can numbers be separated to show how many are left?</p> <p>What types of situations involve subtraction?</p>	<p>Understand that comparing two quantities to find out how much more or less than one quantity is</p> <p>Understand the role of the minus sign</p> <p>Understand that taking part of a group away is subtraction</p> <p>Misconceptions: That the commutative property applies to subtraction</p>	<p>Students will be able to:</p> <p>Separate parts from a whole.</p>
Common Resources		Common Assessments
<p>enVisionMath Program: <i>Intervention Activities</i> <i>Math Background</i> <i>Additional Activities</i></p> <p>Additional Resources:</p> <p>Card games Dice</p>		<p><i>Quick Check</i> <i>Practice Master</i></p> <p>Informal Assessments: White boards Anecdotal assessments Journals/Notebooks Frequent observations Number cards to put in order</p>

Spinner Activities
Sequencing activities
Ten frames
Rekenreks
Unifix cubes
Anchor charts
Math Journals
Interactive Math Notebooks
Math Literature
AddVantage Math Recovery (AVMR) Activities
WEB SITE: **AVMR Resources for Number Sense and Computation-**
<http://learn.district196.org/course/view.php?id=1482>
Math Start books
Common Core Progress
Dot patterns
Play-Doh number mats
Dominos

Math Reads:

Turtle Splash
Ten Sly Piranhas
Ten Little Fish
Five Little Ducks

Vocabulary

Left, separate, take away, subtract, minus sign, difference, subtraction sentence

Unit/Timeframe: Composing and Decomposing Numbers 1-19 (Topics 9, 10 & 11)* Approximately 6 weeks for conceptual unit		Grade Level:
Topic 9: Composing and Decomposing Numbers to 10		
Additional Notes		
*Please consider these three Topics as a unit. You may wish to be flexible with the sequence of the lessons and/or Topics throughout the unit (e.g. teaching lessons from within this unit – but from different Topics - together or in a different order).		
Content Standards		2011 MA Curriculum Framework for Literacy
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 $5 = 4 + 1$). 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. K.MD.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.		N/A
Essential Questions	Knowledge/Concepts	Skills
What are different ways to make a number?	Understand that the number of objects in a group remains the same regardless of how the objects are arranged/placed Understand that there is more than one way to show a number in 2 parts (part/part/whole) Understand that equations (addition	Students will be able to: Show different ways to represent numbers to 10 by joining 2 groups together. Use (+) and (=) to represent a number (addition) sentence with quantities to 10.

	<p>number sentences using (+) and (=) can be used to show parts of a whole</p> <p>Understand addition as “putting together” and “adding to” understand</p> <p>Understand subtraction as “taking apart” and “taking from”</p>	
Common Resources		Common Assessments
<p>enVisionMath Program: <i>Intervention Activities</i> <i>Math Background</i> <i>Additional Activities</i></p> <p>Additional Resources:</p> <p><i>Part-Part-Whole</i> graphic organizer (<i>enVisionMath</i> Grade 1) <i>Ways to Make 10</i> bracelets (pony beads & pipe cleaners) Rekenrek Ten-frames Anchor charts Math Journals Interactive Math Notebooks Math Literature <i>AddVantage Math Recovery</i> (AVMR) Activities WEB SITE: AVMR Resources for Number Sense and Computation - http://learn.district196.org/course/view.php?id=1482 Finger Patterns <i>Math Start</i> books <i>Common Core Progress</i> <i>Dot patterns</i></p>	<p><i>Quick Check</i> <i>Practice Master</i></p> <p>Informal Assessments: White boards Anecdotal assessments Journals/Notebooks Frequent observations Number cards to put in order</p>	

<i>Play-Doh number mats</i> <i>Dominos</i> Math Reads: <i>Math Fables</i> <i>Turtle Splash</i> <i>Ten Sly Piranhas</i> <i>Ten Little Fish</i> <i>Ten on the Sled</i> <i>Rooster's Off to See the World</i>	
Vocabulary	
Whole, part, graph, part-part-whole, decompose	

Unit/Timeframe: 6 weeks for conceptual unit Topic 10: Composing Numbers 11-19	Composing and Decomposing Numbers 1-19 (Topics 9, 10 & 11)*	Grade Level: Kindergarten
Additional Notes		
*Please consider these three Topics as a unit. You may wish to be flexible with the sequence of the lessons and/or Topics throughout the unit (e.g. teaching lessons from within this unit – but from different Topics - together or in a different order).		
Content Standards		2011 MA Curriculum Framework for Literacy
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 (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.		N/A

Essential Questions	Knowledge/Concepts	Skills
<p>How can you add <u>one</u> ten and some ones to make numbers 11-19?</p>	<p>Understand numbers from 11-19 can be represented as the sum of 10 and another number/quantity</p> <p>Understand patterns on the hundreds chart can be represented using number sentences and drawings</p>	<p>Students will be able to:</p> <p>Represent numbers 11-19 as a number sentence or drawing (10 plus another quantity)</p> <p>Identify number patterns on a hundreds chart.</p> <p>Represent patterns on the hundreds chart using number sentences.</p>
Common Resources		Common Assessments
<p>enVisionMath Program: <i>Intervention Activities</i> <i>Math Background</i> <i>Additional Activities</i></p> <p>Additional Resources:</p> <p><i>Part-Part-Whole</i> graphic organizer (<i>enVisiosMath</i> Grade 1) <i>Ways to Make 10</i> bracelets (pony beads & pipe cleaners) Rekenrek Ten frames Anchor charts <i>Common Core Progress</i> Math Journals Interactive Math Notebooks Math Literature <i>AddVantage Math Recovery</i> (AVMR) Activities WEB SITE: AVMR Resources for Number Sense and Computation- http://learn.district196.org/course/view.php?id=1482</p>		<p><i>Quick Check</i> <i>Practice Master</i></p> <p>Informal Assessments: White boards Anecdotal assessments Journals/Notebooks Frequent observations Number cards to put in order</p>

<p>Finger Patterns <i>Math Start</i> books <i>Dot patterns</i> <i>Play-Doh number mats</i> <i>Dominos</i></p> <p>Math Reads: <i>Ready or Not Here I Come!</i> <i>Bears at the Beach</i> <i>Teeth, Tails, & Tentacles</i></p>	
Vocabulary	
How many more, tens, ones	

<p>Unit/Timeframe: Composing and Decomposing Numbers 1-19 (Topics 9, 10 & 11)* 6 weeks for conceptual unit</p> <p>Topic 11: Decomposing Numbers 11-19</p>	<p>Grade Level: Kindergarten</p>
Additional Notes	
<p>*Please consider these three Topics as a unit. You may wish to be flexible with the sequence of the lessons and/or Topics throughout the unit (e.g. teaching lessons from within this unit – but from different Topics - together or in a different order).</p>	

Content Standards		2011 MA Curriculum Framework for Literacy
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 (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.		N/A
Essential Questions	Knowledge/Concepts	Skills
How can we break the numbers 11-19 into parts?	<p>Understand that there is more than one way to show a number</p> <p>Understand the numbers (11-19) can be broken up into one ten and another part called ones</p> <p>Understand the numbers 11-19 can be decomposed as the sum of one group of ten and a part comprised of a group of ones</p> <p>Understand number sentences can be written to represent the decomposition of numbers 11-19 as the sum of one group of 10 and another group of ones</p>	<p>Students will be able to:</p> <p>Use objects to create sets to 19.</p> <p>Represent the decomposition of 11-19, using a number sentence, as ten ones and another part comprised of a group of ones.</p>
Common Resources		Common Assessments
enVisionMath Program: <i>Intervention Activities</i> <i>Math Background</i> <i>Additional Activities</i>		<i>Quick Check</i> <i>Practice Master</i> Informal Assessments: White boards

<p>Additional Resources:</p> <p><i>Part-Part-Whole</i> graphic organizer (<i>enVisionMath</i> Grade 1)</p> <p>Rekenrek</p> <p>Ten frames</p> <p>Anchor charts</p> <p>Math Journals</p> <p>Interactive Math Notebooks</p> <p>Math Literature</p> <p><i>AddVantage Math Recovery</i> (AVMR) Activities</p> <p>WEB SITE: AVMR Resources for Number Sense and Computation- http://learn.district196.org/course/view.php?id=1482</p> <p>Finger Patterns</p> <p><i>Math Start</i> books</p> <p><i>Common Core Progress</i></p> <p><i>Dot patterns</i></p> <p><i>Play-Doh number mats</i></p> <p><i>Dominos</i></p> <p>Math Reads:</p> <p><i>Ready or Not Here I Come!</i></p> <p><i>Bears at the Beach</i></p> <p><i>Teeth, Tails, & Tentacles</i></p>	<p>Anecdotal assessments</p> <p>Journals/Notebooks</p> <p>Frequent observations</p> <p>Number cards to put in order</p>
Vocabulary	
<p>Tens, ones, set, double ten frame, decompose, sum</p>	

Unit/Timeframe: Approximately 2 weeks		Topic 6: Numbers to 100		Grade Level: Kindergarten	
Additional Notes					
<ul style="list-style-type: none"> Counting by 2's and 5's is not part of the Kindergarten standard (Lesson 6-2 OPTIONAL) 					
Content Standards			2011 MA Curriculum Framework for Literacy		
K.CC.1 Count to 100 by ones and by tens. 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.			N/A		
Essential Questions		Knowledge/Concepts		Skills	
How can numbers to 100 be counted using a hundred chart?		<p>Understand that counting tells how many are in a set not matter which order the objects are counted</p> <p>Understand counting is cumulative</p> <p>Understand numbers are counted and written in a specific order on a hundreds chart</p> <p>Understand counting patterns (numerical and visual) can be seen on</p>		<p>Students will be able to:</p> <p>Count to 100 by tens.</p> <p>Use a hundreds chart to count and write numbers.</p> <p>Use a hundreds chart to recognize patterns when counting by tens.</p>	

	hundreds chart by looking at how the numbers are alike and different	
Common Resources		Common Assessments
<p>enVisionMath Program: <i>Intervention Activities</i> <i>Math Background</i> <i>Additional Activities</i></p> <p>Additional Resources:</p> <p><i>Part-Part-Whole</i> graphic organizer (<i>enVisionMath</i> Grade 1) Rekenrek Ten-frames Anchor charts Math Journals Interactive Math Notebooks Math Literature <i>AddVantage Math Recovery</i> (AVMR) Activities WEB SITE: AVMR Resources for Number Sense and Computation http://learn.district196.org/course/view.php?id=1482 Finger Patterns <i>Math Start</i> books <i>Common Core Progress</i> <i>Dot patterns</i> <i>Play-Doh number mats</i> <i>Dominos</i></p> <p>Math Reads: 98, 99, 100! <i>Ready or Not, Here I Come!</i></p>	<p><i>Quick Check</i> <i>Practice Master</i></p> <p>Informal Assessments: White boards Anecdotal assessments Journals/Notebooks Frequent observations Number cards to put in order</p>	

Vocabulary
Hundred chart, column, row, about, count by tens

Unit/Timeframe: Approximately 2 weeks	Topic 12: Measurement	Grade Level: Kindergarten
Additional Notes		
<ul style="list-style-type: none"> • Lesson 12-7 is OPTIONAL; it could be used as an enrichment activity. 		
Content Standards	2011 MA Curriculum Framework for Literacy	
<p>K.MD.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.</p> <p>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. <i>For example, directly compare the heights of two children and describe one child as taller/shorter</i></p>	N/A	
Essential Questions	Knowledge/Concepts	Skills
How can objects be compared and ordered by length, height and weight?	<p>Understand objects can be compared and ordered by length, capacity and weight</p> <p>Understand objects have measurable attributes that can be recognized and described</p>	<p>Students will be able to:</p> <p>Recognize and describe measurable attributes of objects.</p> <p>Compare and order objects by weight, length, height, and capacity.</p>

	<p>Understand objects can be compared and ordered by length and weight</p> <p>Understand that comparing by height is similar to comparing by length</p>	
Common Resources		Common Assessments
<p>enVisionMath Program: <i>Intervention Activities</i> <i>Math Background</i> <i>Additional Activities</i></p> <p>Additional Resources:</p> <p>Balance scales Rulers Unifix cubes Paper clips Popsicle sticks Anchor charts <i>Common Core Progress</i> Math Journals Interactive Math Notebooks Math Literature: <i>How Big is a Foot? By Rolf Myller, Snakes Long, Longer, Longest By Jerry Pallotta</i> <i>Math Start</i> books</p> <p>Math Reads: <i>I'm the Biggest Thing in the Ocean</i> <i>Balancing Act</i></p>		<p><i>Quick Check</i> <i>Practice Master</i></p> <p>Informal Assessments: White boards Anecdotal assessments Journals/Notebooks Frequent observations Number cards to put in order</p>

Vocabulary

Length, shorter, longer (than), as long as (same length as), longest, shortest, height, taller (than), as tall as, tallest, holds more, holds less, empty, full, most, least, lighter (than), weight, weighs less, heavier (than), weighs more, about the same, balance scale