



Kindergarten Math Pacing Guide

2014-2015

Accessing Resources

<p>Investigations Worksheet PDFs</p> <ol style="list-style-type: none"> 1) Go to Pearsonsuccessnet.com 2) Enter your username and password. <i>If it is your first time logging in: Scroll down on the log-in screen and click on Register. See separate handout or ask a math leader/administrator if you need assistance with registering and adding your materials the first time.</i> 3) Click on the student edition/student activity workbook. 4) Print the worksheets you need 	<p>Instruction Portal</p> <ol style="list-style-type: none"> 1) Go to albany.k12.or.us 2) Click on Departments and Services on the left menu 3) Click on Curriculum and Instruction on the top menu 4) Click on Instruction Portal 5) Username: gapsteacher Password: To get the password, talk to your building's math leader. 								
<p>Investigations Common Core additional lessons</p> <p>There are additional lessons and additional teaching notes to better satisfy all common core state standards. These lessons, teaching notes, and worksheets are in the book our district purchased last year titled <u>Investigations and the Common Core State Standards</u>.</p>	<p>Balanced Math – The pacing guide represents the minimum set of skills needed for students to meet the assessment required to receive a diploma. Therefore, it is important to stay as close to the timing in the pacing guide as possible. If you get to the end of a unit's allotted time and your students have not mastered all of the skills yet, those skills become a part of the Review section of your lesson and the Conceptual Lesson section moves with the pacing guide. This enables your students to reach mastery without slowing the pace of instruction.</p>								
<p>Acquiring and Maintaining Skills —Throughout the year kindergarten students need to consistently build number sense, understand math vocabulary, and become fluent in addition and subtraction math facts through daily exposure to content knowledge and daily practice of the skills. Some resources are listed below to reinforce daily practice.</p> <p>Kim Sutton <u>10-Block</u> to maintain fluency skills. Each building has a <u>10-Block</u> binder.</p> <p>Number Corner Monthly activities in Number Corner can support classroom instruction. Throughout the year this program has a spiral effect of the concepts to build strong foundational math knowledge. The calendar patterns each month challenge students through predictions. Problem solving, communication, and reasoning are also emphasized each month.</p> <p>Ron Brown Music (These CD's came with the Kim Sutton materials)</p>	<p style="text-align: center;">Balanced Math Instruction Distribution</p> <p>Example: 60 minute lesson</p> <p>15 minutes Review 5 minutes Mental Math 40 minutes Conceptual Lesson</p> <table border="1"> <caption>Balanced Math Instruction Distribution</caption> <thead> <tr> <th>Instruction Type</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Conceptual Lesson</td> <td>65-70%</td> </tr> <tr> <td>Review</td> <td>25-30%</td> </tr> <tr> <td>Mental Math</td> <td>5-7%</td> </tr> </tbody> </table>	Instruction Type	Percentage	Conceptual Lesson	65-70%	Review	25-30%	Mental Math	5-7%
Instruction Type	Percentage								
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Kindergarten Key Concepts and Corresponding Activities

Key Concept	Activity
<p><u>Counting and Cardinality</u></p> <ul style="list-style-type: none"> Students need to understand the one-to-one correspondence necessary to count objects. To do this, students need to know number names and count the sequence. They also need to understand that the last number said tells the number of objects in the set. 	<p><u>Counting Jar</u> Introduced in Unit 1 Investigation 2.1 (pg. 58)</p> <p>Continued in Unit 1: 2.1, 2.2, 2.3, 2.5, 3.2, 3.4, 3.5, 3.6 Unit 2: 1.3, 1.5, 1.6, 1.8, 1.10, 2.1, 2.2, 2.3, 2.8, 2.9, 2.10 Unit 3: 1.3, 1.5, 2.1, 3.2, 3.3, 3.4 Unit 4: 1.2, 1.3, 1.4, 1.5, 1.6A, 1.6B, 1.6C, 2.5, 3.2, 3.3, 4.2, 4.3, 4.4, 4.5, 4.6 Unit 5: 2.4, 2.6, 2.7, 3.2, 3.3, 3.4, 3.5 Unit 6: 1.4, 1.6, 1.7, 2.1, 2.6, 3.1, 3.2, 3.3 Unit 7: 1.2, 1.4, 1.5, 1.6, 3.2, 3.3, 3.5</p>
<p><u>Addition and Subtraction</u></p> <ul style="list-style-type: none"> Students need to understand addition as putting together and adding to. Students need to understand subtraction as taking apart, taking from, and comparing. 	<p><u>Toss the Chips</u> Introduced in Unit 4 Investigation 4.4 (pg. 144)</p> <p>Continued in Unit 4: 4.5, 4.6, 4.7, 4.8, 4.9 Unit 6: 1.2, 1.3A, 1.3, 1.4, 4.2, 4.3, 4.4, 4.5, 4.6, 5A.2</p>
<p><u>Place Value</u></p> <ul style="list-style-type: none"> Students work with numbers 11-19 to gain foundations for place value. Students need to understand that a group of 10 ones makes one group of ten and is notated one place value to the left of the ones. 	<p><u>Build It</u> using the Ten Frame Introduced in Unit 2 Investigation 1.7 (pg. 56)</p> <p>Continued in Unit 2: 1.8, 1.10, Unit 4: 2.1, 2.2, 2.5, 3.6 (build it/change it), 3.7, 4.2, 4.3, Unit 6: 3.4 (build and remove), 3.5, 3.6, 3.7, 5A.1, 5A.3 (built it: teen numbers), 5A.4, 5A.5</p>
	<p>Bold lessons indicate a discussion or new level of rigor introduced</p>

The above concepts are the key ideas for Kindergarten that students will build on in the years to come. The students need to be familiar with the three activities, Counting Jar, Toss the Chips. And Build It, so that in the following year first grade teachers can use these activities before they start instruction that builds on these concepts. This will allow first grade teachers to hear from the students what they remember from Kindergarten. It will also remind the students what they learned so they can connect the new learning to what they already know.

Teaching Tips

- Introduce basic 2D shapes early in the school year instead of waiting until Unit 5, even though it is not formally assessed until then.
- Use the term “add one more” early in the school year.
- Look at the back of each Investigations unit in the “Teachers notes” section for clarification on how to teach (explain) terms and concepts.
- Provide extra positional word activities in first semester. Our Investigations program has a few activities but for a student to master this standard you will need to use some supplementary materials.
- The family letter in the additional online lessons is **a replacement** to the one in our book (units 4, 6, and 7). To access the online materials, refer to the “Accessing Resources” section of this pacing guide.
- Important calendar activities:
 - Use a different pattern on the calendar each month. Patterns are not in the kindergarten common core state standards but should still be taught to build on future grade level standards.
 - Counting the days of school by bundling sticks/straws and regrouping for daily practice to reinforce place value concepts.
- When modeling equations for the students also include samples where the sum is written first (example: $5 = 2 + 3$).
- Plan Ron Brown songs for each unit.
- You Tube: Mr. Harry’s Kindergarten has many fun concept building videos.
- Use 10 frames and 5 frames to teach fluency and number concepts. Websites below can be used to find supplementary materials. These sites will also be posted on the teacher portal for easy access.
 - Ten Frame Information and Activities:
 - <http://thinkmagnetkids.com/2012/05/31/the-10-frame-bakery-kindergarten-math-activity-aligned-with-the-common-core/>
 - <http://mrsriccaskindergarten.blogspot.com/2012/01/ten-frame-toss-freebie.html>
 - http://www.edplus.canterbury.ac.nz/literacy_numeracy/maths/numdocuments/dot_card_and_ten_frame_package2005.pdf
 - http://www.mathlearningcenter.org/media/Bridges_GrK_OnlineSupplement/BKSUP-A4_NumAddSub_0310.pdf
 - <https://gradekcommoncoremath.wikispaces.hcpss.org/Ten+Frames+and+Dot+Cards>

Unit 1: Counting “Who Is in School Today?”	Time: 4 weeks September 8 th to October 3 rd
Standards to Mastery None in this unit	Standards for which this unit builds foundational skills K.CC.1 (introduced standard to class size amount) K.CC.3 K.CC.4 a-c K.CC.5 K.MD.3
Mathematical Practice Standards to Emphasize	
Big Ideas We count objects to find how many there are – each object gets one number and the last number said tells how many objects there are. Each number represents a specific quantity, or amount of things.	Essential Questions How can we find how many things are in a set? How are numbers related to quantities?
Concepts We use numbers (orally) to count things (students, buttons, etc). One number goes with each object when counting (one-to-one). The last number said tells the size of the group. Larger numbers represent groups with more things in them. Objects can be sorted into categories based on their attributes.	Skills Count objects to 10 Create sets with equal number of objects as a given set Describe attributes of an object Record the number of objects in a set (numbers, pictures) Sort objects by a given attribute Compare the size of two groups Write numerals from 1 to 10 (this will need additional resources)

Resources	Standards	Expectation by end of Unit	Vocabulary	
<p>Investigations <u>Unit 1 Who Is in School Today?</u></p> <p>Kim Sutton: <u>Do The Math</u> Number Chats pg. 23-46 Digit Detectives pg. 47-74</p> <p>Ron Brown Songs</p>	K.CC.1 Count to 100 by ones and by tens.	Count by ones to 10.	<ul style="list-style-type: none"> • Set • Attribute • Compare • Same • Different • Count • Describe • Sort • Classify • Category • Size • Shape • Match • Position • Above • Below • Beside • In front of • Behind • Next to • Numeral • Equal <p>Bold words are student words</p>	
	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).	Write numerals from 1 - 6		
	K.CC.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. 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. c. Understand that each successive number name refers to a quantity that is one larger.	<p>a. Count a set of objects 0 - 5 demonstrating 1:1 correspondence.</p> <p>b. Student can state the number of objects in the set 0 - 5 without recounting.</p> <p>c. Student can state the number of objects in the set 0 - 5 if one more is added.</p>		
	K.CC.5 Count to answer “how many?” questions about as many as 20 things arranged in a line, 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.	Count objects to answer how many in a set 1 - 5. Given a number from 1 -5, count out that many objects.		
	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.)	Introduce		

Unit 2: Counting and Comparing “Counting and Comparing”	Time: 5 weeks	October 6 th to November 7 th
Standards to Mastery K.MD.2	Standards for which this unit builds foundational skills K.CC.3 K.CC.4 a-c K.CC.5 K.CC.6	
Mathematical Practice Standards to Emphasize		
Big Ideas We can use pictures, other representations (tally or circles), and numerals to represent quantities. Length and quantity are two attributes that can be used to compare two objects or two sets of objects. Changing the arrangement or order of a set of objects does not change the number of objects in the set.	Essential Questions How can we represent how many objects are in a group? How can we compare objects or sets of objects? If a set of objects is counted in a different order, does it change the number of objects in the set?	
Concepts The order objects are counted in does not affect the number of objects counted. Objects can be compared using length. Sets can be compared using quantity. Quantities can be represented with pictures and more efficiently with numerals. Zero represents a group with nothing in it.	Skills Represent quantities (to 12) with numbers and/or pictures Write numerals to 12 Count backwards from 12 (orally) Count objects to 12 Use manipulatives to represent numbers to 10 Create sets with an equal number of objects as in a given set of objects Compare two objects with different lengths Describe the difference (more of/less of, or taller or longer/shorter) of two objects	

Resources	Standards	Expectation by end of Unit	Vocabulary
<p>Investigations: <u>Unit 2 Counting and Comparing</u></p> <p>Kim Sutton: <u>Do The Math</u> Number Chats pg 23-46 Digit Detectives pg 47-74</p> <p>Ron Brown Songs</p>	<p>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).</p>	<p>Write numerals from 0 - 12 Count a number of objects 0 - 12 and write that numeral</p>	<ul style="list-style-type: none"> ● Count ● Size ● Compare ● Measure ● Measurable attributes ● Longer ● Shorter ● More / Greater than ● Fewer/less than ● Same / Equal ● Taller ● Smaller ● Bigger ● Length ● Describe ● Zero <p>Bold words are student words</p>
	<p>K.CC.4 Understand the relationship between numbers and quantities; connect counting to cardinality.</p> <p>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.</p> <p>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.</p> <p>c. Understand that each successive number name refers to a quantity that is one larger.</p>	<p>Count a set of objects 0 - 12 demonstrating 1:1 correspondence. Student can state the number of objects in the set 0-12 without recounting. c. Student can state the number of objects in the set 0-12 if one more is added.</p>	
	<p>K.CC.5 Count to answer “how many?” questions about as many as 20 things arranged in a line, 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.</p>	<p>Count objects to answer how many in a set 0 - 12. Given a number from 0 - 12, count out that many objects.</p>	
	<p>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. eg., by using matching and counting strategies (Include groups with up to ten objects)</p>	<p>Compare quantities up to 12 to see which is greater.</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>	<p>Mastery</p>	

Unit 3: Patterns “What Comes Next?”	Time: 4 weeks November 12 th to December 19 th
Standards to Mastery None in this unit	Standards for which this unit builds foundational skills K.CC.4 a, b K.CC.5 K.G.1
Mathematical Practice Standards to Emphasize	
Big Ideas We can use attributes such as number, size, shape, and color to describe patterns. Using the pattern of attributes in a sequence, we can find what comes next.	Essential Questions What patterns can we find and how can we describe them? How can we extend a pattern?
Concepts Patterns can be used to predict what comes next. Recognize what makes a pattern. Patterns can take more than 2 units to repeat (ex. AAB). Patterns can exist in one attribute even when they don’t exist in another (the number of blocks might form a pattern even if the color doesn’t).	Skills Copy a repeating pattern Determine what comes next in a repeating pattern Use positional terms to describe locations (next to, before, after, in front, behind, etc) Count the number of things needed to make one unit (car) of a pattern (train) Count objects to 12 Represent quantities to 12 with numbers and/or pictures Write numerals to 12

Resources	Standards	Expectation by end of Unit	Vocabulary
<p>Investigations: <u>Unit 3 What Comes Next?</u></p> <p>Ron Brown Songs</p>	<p>K.CC.4 Understand the relationship between numbers and quantities; connect counting to cardinality.</p> <p>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.</p> <p>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.</p> <p>c. Understand that each successive number name refers to a quantity that is one larger.(not covered in this unit)</p>	<p>Count a set of objects 0 - 12 demonstrating 1:1 correspondence.</p> <p>Student can state the number of objects in the set 0 - 12 without recounting.</p> <p>c. Student can state the number of objects in the set 0 - 12 if one more is added.</p>	<ul style="list-style-type: none"> • Observe • Pattern • Different • Same • Describe • Repeat • Unit • Sort • Classify • Attribute • Compare • Next to • Before • After • In front of • Behind <p>Bold words are student words</p>
	<p>K.CC.5 Count to answer “how many?” questions about as many as 20 things arranged in a line, 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.</p>	<p>Count objects to answer how many in a set 0 - 12. Given a number from 1 - 12, count out that many objects.</p>	
	<p>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, below, beside, in front of, behind, and next to.</p>	<p>Introduce</p>	

Unit 4: Addition and Subtraction “Measuring and Counting”	Time: 6.5 weeks January 5 th to February 20 th
<p>Standards to Mastery K.CC.4 a-c K.CC.6 K.MD.1 K.CC.5 K.CC.7</p> <p>Standard for which this reinforces skills K.MD.2</p>	<p>Standards for which this unit builds foundational skills K.CC.1 K.OA.1 K.CC.2 K.OA.2 K.CC.3 K.OA.3</p>
Mathematical Practice Standards to Emphasize	
<p>Big Ideas Zero represents a count of no objects.</p> <p>Addition is used to represent things that are coming together or growing.</p> <p>Subtraction is used to represent things that are leaving or being taken away.</p> <p>Length and weight are can be used to compare objects.</p>	<p>Essential Questions How do we represent a set when there is nothing in the set?</p> <p>How can we represent situations where things are coming together or growing?</p> <p>How can we represent situations where things are leaving or being taken away?</p> <p>How can we compare objects?</p>
<p>Concepts Zero represents a count of no objects. Adding is putting things together. Subtraction is taking things away. A number can be broken into smaller parts (6 can be 4 + 2). Length and weight are two measurable attributes that can be used to compare two objects. When things are equal, it means they represent the dame amount.</p>	<p>Skills Count forward from a number other than 1 Compare two numbers when given the numerals (1 – 10) Count on to add Count backwards or remove objects and then recount to subtract Decompose numbers (5 = 3 + 2) Measure an object by counting the number of same length units that fit against it Compare lengths of different objects Compare weights of different objects Represent addition and subtraction problems (with objects, acting out situations, equations, etc.) Find how many there are when one more is added or one is taken away Given a story problem, identify whether it is a combining (+) or separating (-) scenario</p>

Resources	Standards	Expectation by end of Unit	Vocabulary
<p>Investigations: <u>Unit 4 Measuring and Counting</u> Add: 1.6A lesson pg. CC15-CC19* 1.6B lesson pg. CC20-CC23* 1.6C lesson pg. CC24-CC26*</p> <p>Kim Sutton: <u>Ten Block</u> +/- 0 Strategies +/- 1 Strategies</p> <p>Ron Brown Songs</p> <p><i>Standards continued on the next page.</i></p>	K.CC.1 Count to 100 by ones and by tens.	Count to 30 by 1's and 10's	<ul style="list-style-type: none"> ● Measure ● Measurable attributes ● Length ● Longer ● Shorter ● More ● Less ● Fewer ● Plus ● Minus ● Add ● Compare ● Total ● Count ● Subtract ● Describe ● Weight ● Heavier ● Lighter ● Set <p>Bold words are student words</p>
	K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	Count forward from any number less than 30.	
	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).	Write numerals from 0-12 Count a number of objects 0 - 12 and write that numeral.	
	K.CC.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. 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. c. Understand that each successive number name refers to a quantity that is one larger.	Mastery	
	K.CC.5 Count to answer “how many?” questions about as many as 20 things arranged in a line, 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.	Mastery	
	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. eg., by using matching and counting strategies (Include groups with up to ten objects)	Mastery	
	K.CC.7 Compare two numbers between 1 and 10 presented as written numerals.	Mastery	

*Additional lessons are in the *Investigations and the Common Core State Standards* supplement referenced on pg. 2

Resources	Standards	Expectation by end of Unit	Vocabulary
<i>Unit 4 Continued</i>	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 explanation, expressions, or equations.	Represent addition and subtraction with objects, etc. This standard is introduced but not assessed at this time.	
	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).	Represent addition and subtraction with objects, etc. This standard is introduced but not assessed at this time.	
	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 $5 = 4 + 1$).	Represent addition and subtraction with objects, etc. This standard is introduced but not assessed at this time.	
	K.MD.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.	Mastery	
	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>	Reinforce (Mastery in Unit 2)	

Unit 5: 2D and 3D shapes “Make a Shape, Build a Block”	Time: 4 weeks February 23 rd to March 20 th
Standards to Mastery K.G.1 K.G.2 K.G.3 K.G.4 K.G.5 K.G.6	Standards for which this unit builds foundational skills None in this unit
Mathematical Practice Standards to Emphasize	
Big Ideas Objects can be described using attributes and shape names. The location of an object can be described using relative position. Shapes can be composed into larger shapes or decomposed into smaller shapes.	Essential Questions How can we describe an object and its location? How can we create and decompose shapes?
Concepts The location of an object can be described by using the location of other known objects. Two-dimensional shapes are “flat”. Three-dimensional shapes are “solid” take up space. Shapes can be composed (or decomposed) into larger (or smaller) shapes just like numbers can be composed (or decomposed) into larger (or smaller) numbers.	Skills Use attributes to describe 2D and 3D shapes Describe objects in the real world (door, clock) using names of shapes (rectangle, circle) Describe the relative location of an object (the clock is <i>above</i> the door) Compose simple shapes to form larger shapes (two triangles can make a rectangle) Compare different 2D and 3D shapes Construct 3D shapes Name shapes Identify a shape as 2D or 3D

Resources	Standards	Expectation by end of Unit	Vocabulary
Investigations: Unit 5 Make a Shape, Build a Block	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, below, beside, in front of, behind, and next to.	Mastery	<ul style="list-style-type: none"> • Rectangle • Square • Circle • Curved/Straight • Side/Edge • Round • Triangle • Hexagon • Rhombus • Trapezoid • Sphere • Cone • Same • Different • Face • Matching • Cylinder • Cube • Rectangular prism • Triangular prism • Compare • Describe • 2 - dimensional • 3 - dimensional • Attributes • Corner/Vertex • Shape • Size • Solid/Flat • Orientation • Above/Below • Beside/Next to • In front of /Behind Bold words are student words
Investigations Shape Software	K.G.2 Correctly name shapes regardless of their orientations or overall size.	Mastery	
Number Corner – February	K.G.3 Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”).	Mastery	
Ron Brown Songs	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).	Mastery	
District “S” Drive – GAPS Kindergarten Math Folder (Geometry folder)	K.G.5 Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.	Mastery	
	K.G.6 Compose simple shapes to form larger shapes. <i>For examples, "Can you join these two triangles with full sides touching to make a rectangle?"</i>	Mastery	

Unit: 6 Adding, Subtracting and Teens “How Many Do You Have?”	Time: 7.5 weeks	March 30 th to May 22 nd
Standards to Mastery K.CC.2 K.OA.2 K.OA.5 K.CC.3 K.OA.3 K.NBT.1 K.OA.1 K.OA.4	Standards for which this reinforces skills K.CC.6 (reinforcing skills) K.CC.7 (reinforcing skills)	
Mathematical Practice Standards to Emphasize		
Big Ideas The equal sign shows that two expressions represent the same quantity. Numbers can be composed with other numbers to form larger numbers (or decomposed into the sum of smaller numbers) and can be represented with drawings, representations, equations, and objects. Addition is used to represent when things are coming together and subtraction is used to represent when things being taken away. The numbers from 11 to 19 are composed of one group of ten ones and some more ones.	Essential Questions What are different ways numbers can be represented when we are composing or decomposing them? How can we represent situations where things are coming together or being taken away? How can we represent the teen numbers (numbers from 11 to 19)?	
Concepts Understand that the numbers 11 to 19 are composed of ten ones and some more ones. Addition and subtraction can be represented in many ways (objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanation, expressions, or equations). Addition is used to represent when things are coming together. Subtraction is used to represent when things being taken away. When things are equal, it means they represent the same amount.	Skills Decompose numbers (≤ 10) in more than one way Record decompositions of numbers using drawings, representations, and/or equations Find the other addend to make a sum of 10 given one addend Solve addition and subtraction word problems Represent addition and subtraction with objects, acting out situations, verbal explanations, drawings, equations, etc. Count on the number line Fluently add and subtract within 5 Compare two numbers between 1 and 10 Write numerals from 0 to 20 Represent the number taken away (minuend) in a picture Count on from a number other than 1 Compose and decompose numbers from 11 to 19 into a group of ten ones and some further ones Use notation (+, -, =) to write equations Use equal sign to show equivalent expressions	

Resources	Standards	Expectation by end of Unit	Vocabulary
<p>Investigations: <u>Unit 6 How Many Do You Have?</u> Add: 1.3A lesson pg. CC35-CC37 5A.1 lesson pg. CC38-CC41 5A.2 lesson pg. CC42-CC46 5A.3 lesson pg. CC47-CC50 5A.4 lesson pg. CC51-CC54 5A.5 lesson pg. CC55-CC58</p> <p>Ron Brown Songs</p> <p>10-frame Look for web links on the teacher portal.</p> <p>District “S” Drive – GAPS Kindergarten Math Folder (K.OA folder)</p>	K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	Mastery	<ul style="list-style-type: none"> • Length • Measure • Measurable attributes • More • Add • Plus • Combined • Equal • Minus • Equation • Less • Fewer • Count • Subtract • Compare • Describe • Ones • Tens • Addition • Subtraction • Compose • Decompose • Total • Sum • Place Value • Difference <p>Bold words are student words</p>
	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).	Mastery	
	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. eg., by using matching and counting strategies (Include groups with up to ten objects)	Reinforce (Mastery in Unit 4)	
	K.CC.7 Compare two numbers between 1 and 10 presented as written numerals.	Reinforce (Mastery in Unit 4)	
	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 explanation, expressions, or equations.	Mastery	
	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).	Mastery	
	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 $5 = 4 + 1$).	Mastery	
	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).	Mastery	
	K.OA.5 Fluently add and subtract within 5.	Mastery	
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.	Mastery		

Unit: 7 Data Analysis “Sorting and Surveys”	Time: 3 weeks	May 26 th to June 11 th
Standards to Mastery K.CC.1 K.MD.3	Standards for which this unit builds foundational skills K.CC.2	
Mathematical Practice Standards to Emphasize		
Big Ideas Data can be collected about things in the real world using surveys and the results need to be counted.	Essential Questions How is counting used in the real world?	
Concepts Interpret results of a survey. We can count by groups of size greater than one (2’s and 10’s).	Skills Represent a set of data (2 categories) Count by 2’s Compare two quantities to determine which is more Solve problems using data Collect survey responses Sort objects into given categories by attributes Count the number of objects in each category Count on to 100 Count by groups of 10 to 100	

Resources	Standards	Expectation by end of Unit	Vocabulary
Investigations: Unit 7 Sorting and Surveys Add: 1.7A lesson pg. CC62-CC65 Ron Brown Songs	K.CC.1 Count to 100 by ones and by tens.	Mastery	<ul style="list-style-type: none"> • Count • Attributes • Same • Different • Describe • Survey • Data • Sort • Compare • Tens • Ones • Response • Results <p>Bold words are student words</p>
	K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	Reinforce (Mastery in Unit 6)	
	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.)	Mastery	

Additional Resources for Kindergarten

<p>Unit 1</p> <p>Kim Sutton: <u>Do The Math</u></p> <ul style="list-style-type: none">Counting Rope pp 9-22 <p><u>All Aboard the Algebra Express</u></p> <ul style="list-style-type: none">Beep Beep, Vroom Vroom pp 12- 27Repeating Pattern Station pp 28-71 <p><u>Ten Block</u></p> <ul style="list-style-type: none">Counting Strategies I <p>Number Corner – September</p>	<p>Unit 2</p> <p>Kim Sutton: <u>Do The Math</u></p> <ul style="list-style-type: none">Counting Rope pg 9-22 <p>Ten Block</p> <ul style="list-style-type: none">Counting Strategies II <p>Number Corner – October</p>
<p>Unit 3</p> <p>Kim Sutton: <u>All Aboard the Algebra Express</u></p> <ul style="list-style-type: none">Beep Beep, Vroom Vroom pp 12- 27Repeating Pattern Station pp 28-71 <p><u>Do The Math</u></p> <ul style="list-style-type: none">Counting Rope pp 9-22Number Chats pp 23-46Digit Detectives pp 47-74 <p><u>Ten Block</u></p> <ul style="list-style-type: none">Strategies III <p>Number Corner – November</p>	<p>Unit 4</p> <p>Kim Sutton: <u>Do The Math</u></p> <ul style="list-style-type: none">Counting Rope pp 9-22Number Chats pp 23-46Digit Detectives pp 47-74 <p><u>Ten Block</u></p> <ul style="list-style-type: none">Counting Strategies ICounting Strategies II <p>Number Corner – December & January</p>

Additional Resources for Kindergarten

<p>Unit 5</p> <p>Kim Sutton: <u>Ten Block</u></p> <ul style="list-style-type: none">Counting Strategies III & IV <p>Number Corner – February</p>	<p>Unit 6</p> <p>Kim Sutton: <u>All Aboard the Algebra Express</u></p> <ul style="list-style-type: none">Beep Beep, Vroom Vroom pp 12- 27Repeating Pattern Station pp 28-71 <p><u>Do The Math</u></p> <ul style="list-style-type: none">Counting Rope pp 9-22Number Chats pp 23-46Digit Detectives pp 47-74 <p><u>Ten Block</u></p> <ul style="list-style-type: none">Counting Strategies ICounting Strategies IICounting Strategies III & IV+/- 0 Strategies+/- 1 Strategies <p>AIMS on the teacher portal:</p> <ul style="list-style-type: none">Sweet SumsSeashore StoriesMy Place in SpaceHidden numbers <p>Number Corner: March & April</p>
<p>Unit 7</p> <p>Kim Sutton: <u>Ten Block</u></p> <ul style="list-style-type: none">Counting Strategies I, II, III, & IV <p>Number Corner – May & June</p>	