Summit Public Schools
Summit, New Jersey
Grade Level: Kindergarten
Content Area: Math

The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students.

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

Kindergarten Scope and Sequence

Please Note *- This scope and sequence is a general guideline and will vary depending upon the math program teachers are using and the needs of the students.*

Summary of the Year	**Overview**
In Kindergarten, instructional time should focus on two critical areas: (1) representing and comparing whole numbers, initially with sets of objects; (2) describing shapes and space. More learning time in Kindergarten should be devoted to number than to other topics.	**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.
Year-at-a-Glance **Marking Period 1:** **COUNTING AND CARDINALITY** Know number names and the count sequence. Count to tell the number of objects. Compare numbers. **GEOMETRY** Identify and describe shapes. Analyze, compare, create, and compose shapes. **Marking Period 2:** **MEASUREMENT AND DATA** Describe and compare measurable attributes. Classify objects and count the number of objects in categories. **NUMBER AND OPERATIONS IN BASE TEN** Work with numbers 11-19 to gain foundations for place value. **COUNTING AND CARDINALITY** Know number names and the count sequence. Count to tell the number of objects. Compare numbers. **Marking Period 3:** **OPERATIONS AND ALGEBRAIC THINKING** Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from. **GEOMETRY** Identify and describe shapes. Analyze, compare, create, and compose shapes. **COUNTING AND CARDINALITY** Know number names and the count sequence. Count to tell the number	**STANDARDS FOR MATHEMATICAL PRACTICE:** 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.

of objects. Compare numbers.	

Marking Period	Unit Title/Focus	Resources	Everyday Math Units	Go Math Units	enVision Units	Standards
MP1	Unit 1~ Identify, Classify and Count Numbers to 10 *Approximate number of instructional days:* ***8 weeks*** ***Pre-/Post-assessment #1***	Counting Read-Alouds www.k-5mathteachingresources.com/kindergarten-math-activities (i.e. dinosaur puzzles, picture, numeral word match cards (0-10), race to trace 1-6, fill the frame 1-10, etc.)	1-3, 1-5, 1-6, 1-8, 1-12, 1-14, 2-6, 2-9, 2-14 (up to 10 with manipulatives)3-1, 3-3 (up to 10), 3-5 (up to 10), 3-6 (up to 10), 3-9 (up to 10), 3-14, 4-12	Ch. 1-4	Topics 1-4	CCSS.Math.Content.K.CC.A.1 Count to 100 by ones and by tens. CCSS.Math.Content.K.CC.A.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). CCSS.Math.Content.K.CC.B.4a 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. CCSS.Math.Content.K.CC.B.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. CCSS.Math.Content.K.CC.B.4c Understand that each successive number name refers to a quantity that is one larger.

MP1	Unit 2 ~ Identify and Describe Shapes *Approximate number of instructional days:* **4 weeks** ***Pre-/Post-assessment #2***	Shape Books/Read-Alouds www.coolmath-**games**.com/0-**shape**zoid/ http://www.k-5mathteachingresources.com/Geometry-Interactive-Whiteboard-Resources.html http://www.k-5mathteachingresources.com/kindergarten-geometry.html http://www.abcya.com/shapes_geometry_game.htm	1-15, 2-1, 2-2, 4-3, 4-13, 6-3 (with basic shapes), 6-6	Ch. 9	Topics 14, 15, 16	CCSS.Math.Content.K.G.A.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*. CCSS.Math.Content.K.G.A.2 Correctly name shapes regardless of their orientations or overall size. CCSS.Math.Content.K.G.B.5 Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.
MP2	Unit 3 ~ Comparison with Length, Weight, and Numbers to 10. *Approximate number of instructional days:* **4 weeks** ***Pre-/Post-assessment #3, 5***	Measurement Read-Alouds k-5mathteachingresources.com/kindergarten-math-activities (i.e. Greater Than/Less Than) http://www.k-5mathteachingresources.com/kindergarten-measurement-and-data.html	1-13, 3-3, 4-2 (i.e. Top-it ~ Comparing numbers to 10), 3-12, 3-14, 5-6, 5-7, 5-11, 5-13, 6-9	Ch. 11	Topics 2, 4, 12	CCSS.Math.Content.K.CC.C.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] CCSS.Math.Content.K.CC.C.7 Compare two numbers between 1 and 10 presented as written numerals.

						CCSS.Math.Content.K.MD.A.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. CCSS.Math.Content.K.MD.A.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.* CCSS.Math.Content.K.MD.B.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.
MP2	Unit 4 ~ Identify and Classify Numbers 10-20 Counting to 50 by 1's and 10's *Approximate number of instructional days:* **8 weeks** ***Pre-/Post-assessment #4***	k-5mathteachingresources.com/kindergarten-math-activities (i.e. teens on the ten frame book, fill the frame 1-20, etc.)	1-12 (up to 50), 2-6 (up to 50), 2-10, 2-11, 2-12, 2-14 (up to 20 with manipulatives), 3-6 (up to 20), 3-8, 3-15, 3-16, 4-1, 4-2, 4-6, 4-8, 4-12, 4-16, 5-4	Ch. 7, 8	Topics 5, 6, 10, 11	CCSS.Math.Content.K.CC.A.1 Count to 100 by ones and by tens. CCSS.Math.Content.K.CC.A.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1). CCSS.Math.Content.K.CC.A.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). CCSS.Math.Content.K.CC.B.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. CCSS.Math.Content.K.NBT.A.1 Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (such as 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.

MP3	Unit 5 ~ Number Pairs, Addition and Subtraction of Numbers to 5. *Approximate number of instructional days:* **6 weeks** ***Pre-/Post-assessment #7-8***	k-5mathteachingresources.com/kindergarten-math-activities (i.e. addition bag, 5 little ducks, counting on cup, sums of five etc.) http://www.abcya.com/math_facts_game.htm	2.14, 4-4, 4-11, 4-15, 6-9, 7-3, 7-6, 8-5, 8-10, 8-13, 8-14	Ch. 5, 6	Topics 7, 8, 9	CCSS.Math.Content.K.OA.A.1 Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations. CCSS.Math.Content.K.OA.A.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem. CCSS.Math.Content.K.OA.A.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). CCSS.Math.Content.K.OA.A.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. CCSS.Math.Content.K.OA.A.5 Fluently add and subtract

						within 5.
MP3	Unit 6 ~ Analyze, Compare, Create, and Compose 2 and 3 Dimensional Shapes, Counting to 100 by 1's and 10's *Approximate number of instructional days* **6 weeks** ***Pre-/Post-assessment #7-8***	http://www.k-5mathteachingresources.com/Geometry-Interactive-Whiteboard-Resources.html http://www.sheppardsoftware.com/mathgames/earlymath/shapes_shoot.htm	2-1 (using 3-D shapes), 2-2, 3-15, 4-10, 6-3 (using 3-D shapes), 7-7, 7-8, 7-11, 7-14	Ch. 8, 10	Topics 6, 13, 14, 15, 16	CCSS.Math.Content.K.G.A.3 Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid"). CCSS.Math.Content.K.G.B.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). CCSS.Math.Content.K.G.B.5 Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.

						CCSS.Math.Content.K.G.B.6 Compose simple shapes to form larger shapes. *For example, "Can you join these two triangles with full sides touching to make a rectangle?"* CCSS.Math.Content.K.CC.A.1 Count to 100 by ones and by tens.

Unit Description: Marking Period 1

Standard Counting and Cardinality K.C.C. Operations and Algebraic Thinking 2.OA Number and Operations in Base Ten 2.NBT Measurement and Data K.MD Geometry K.G
Big Ideas: *Course Objectives / Content Statement(s)* Counting and Cardinality K.CC A. *Know number names and the count sequence.* B. *Count to tell the number of objects.* C. *Compare numbers.* D. *Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.* Numbers and Operations in Base Ten K.NBT E. *Work with numbers 11–19 to gain foundations for place value.* F. *Describe and compare measurable attributes* G. *Classify objects and count the number of objects in each category.*

Geometry K.G

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

I. Analyze, compare, create, and compose shapes.

Essential Questions *What provocative questions will foster inquiry, understanding, and transfer of learning?*	Enduring Understandings *What will students understand about the big ideas?*
• Where are numbers in our daily routines? • How can we compare and contrast numbers? • How can we use number patterns to help us?	Students will understand that… • Numbers help us understand the world around us • Mathematical ideas are interconnected and build on one another
Areas of Focus: Proficiencies (CCSS)	**Examples, Outcomes, Assessments**
Students will: Counting and Cardinality K.CC *A. Know number names and the count sequence.* K.CC.1 Count to 100 by ones and by tens. 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). *B. Count to tell the number of objects.* 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	Instructional Strategies: • Track the number of days in school • Reinforce counting principals through multi-sensory methods • Introduce concept of zero • Introduce attributes and sorting • Use patterns for counting and cardinality • Practice sorting • Develop counting skills • Introduce and indentify basic shapes • Reinforce counting and numbers 1-10 and 1-20 • Reinforce awareness of numbers in a variety of contexts • Teen numbers represent 10 and "some more" • Introduce add and subtraction number stories Sample Assessments • Students answer the question "How many are there?" by counting objects in a set. • Have students begin a rote forward counting sequence from a number other than 1. Thus, given the number 4, the student would count, "4, 5, 6, 7 ..."

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. 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. *C. Compare numbers.* K.CC.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies (include groups with up to ten objects).	• Have students write the numerals 0-20 and use the written numerals 0-20 to represent the amount within a set. For example, if the student has counted 9 objects, then the written numeral "9" is recorded. • Using manipulatives, have students answer, "Can you join these two triangles with full sides touching to make a rectangle?" • Have students answer the following: o Result Unknown word problem - There are 3 students on the playground. 4 more students show up. How many students are there now? o Change Unknown word problem - There are 3 students on the playground. Some more students show up. There are now 7 students. How many students came? o Start unknown word problem - There are some students on the playground. 4 more students come. There are now 7 students. How many students were on the playground at the beginning? Interdisciplinary Connections • Calendar – on a daily basis have students count, pattern, share about their experiences, add and subtract • Attendance – children assist in recording of daily attendance • Daily schedule – children develop language skills and concepts of time when discussing daily schedule • Handing out supplies – I want to give you one piece of paper and I want you to give away three. How many pieces should I hand you? • Weather bear – use the weather bear to discuss daily weather, patterns, record temperature • Art – use basic shapes in art design • Math literature list (see attached) • http://www.thereadingnook.com/math/ • Read pattern books and notice what changes and what stays the same in each pattern. • While writing as a scientist, include numbers in labels describing what students are investigating
D. Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from. 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.(This applies wherever drawings are mentioned in the Standards.)),	

sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations. 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. 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.	Technology Integration • Play *Spin the Number* on the computer • http://www.pbs.org/parents/earlymath/prek_games.html • Record daily schedule and attendance in a Word document • http://pbskids.org/games/counting.html Media Literacy Integration • Identify numbers found on the internet and in print. Global Perspectives • Count and compare family members • Create graphs of different types of foods/music/clothing from around the world 21st Century Skills: Creativity and Innovation Critical Thinking and Problem Solving Communication and Collaboration Information Literacy Media Literacy Life and Career Skills • Answer questions such as - o What jobs use these skills? o How do your parents use these skills? 21st Century Themes (as applies to content area): Financial, Economic, Business, and Entrepreneurial Literacy
Numbers and Operations in Base Ten K.NBT *E. Work with numbers 11–19 to gain foundations for place value.* 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.	

	Civic Literacy Health Literacy • Movement – *Follow the Leader* – practice counting around a circle while making the same movement the leader is making. The person who gets to 10 changes the movement.
Measurement and Data K.MD *F. Describe and compare measurable attributes.* K.MD.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. K.MD.2 Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference. *For example, directly compare the heights of two children and describe one child as taller/shorter.* *G. Classify objects and count the number of objects in each category.* 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.)	
Geometry K.G *H. Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and*	

spheres). 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*. K.G.2 Correctly name shapes regardless of their orientations or overall size. K.G.3 Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid"). *I. Analyze, compare, create, and compose shapes.* 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). K.G.5 Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes. K.G.6 Compose simple shapes to form larger shapes.	

Unit Description: Marking Period 2

Standard Counting and Cardinality K.C.C. Operations and Algebraic Thinking 2.OA Number and Operations in Base Ten 2.NBT Measurement and Data K.MD Geometry K.G
Big Ideas: *Course Objectives / Content Statement(s)* Counting and Cardinality K.CC A. *Know number names and the count sequence.* B. *Count to tell the number of objects.* Operations and Algebraic Thinking K.OA D. *Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.* Numbers and Operations in Base Ten K.NBT E. *Work with numbers 11–19 to gain foundations for place value.* Measurement and Data K.MD F. *Describe and compare measurable attributes.* G. *Classify objects and count the number of objects in each category.* Geometry K.G H. *Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).*

Essential Questions *What provocative questions will foster inquiry, understanding, and transfer of*	Enduring Understandings *What will students understand about the big ideas?*

learning?	
• What are different ways to count? • What do numbers represent? • What do numbers tell us? • How do I add? • How do I subtract? • What are different ways to measure?	Students will understand that… • Numbers can represent quantity, position, location, & relationships. • Place value is based on groups of ten. • Addition means adding to and subtraction means taking away.
Areas of Focus: Proficiencies (CCSS)	Examples, Outcomes, Assessments
Students will: Counting and Cardinality K.CC *A. Know number names and the count sequence.* K.CC.1 Count to 100 by ones and by tens. 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). *B. Count to tell the number of objects.* K.CC.4 Understand the relationship between numbers and quantities;	Instructional Strategies: • Count and write corresponding numbers • Match numbers to written numerals • Compare and order numbers • Use objects to add and subtract • Count by tens • Recognize patterns of ten Sample Assessments • Students answer the question – o Bobby Bear is missing 5 buttons on his jacket. How many ways can you use blue and red buttons to finish his jacket? Draw a picture of all your ideas. • Ask students to use and define the symbols +, -, = • Have students demonstrate - Three *and* two *is the same amount as* 5 with counters • Have students write the numerals 0-20 and use the written numerals 0-20 to represent the amount within a rectangle?" • Ask students to orally skip count by tens • Use counters or a ten frame to answer - A full case of juice boxes has 10 boxes. There are only 6 boxes in this case. How many juice boxes are missing?

	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.	Interdisciplinary Connections • Art – draw pictures for adding and subtracting • Movement – act out adding and subtracting problems • Literacy – read and write about addition and subtraction problems • Investigate how our bodies help us count and measure • Number and count the steps in a how-to book Technology Integration • http://www.pbs.org/parents/earlymath/prek_games.html Media Literacy Integration • Use websites and print media to investigate numbers in the world. Report addresses, telephone numbers, birthdays, and additional number items that are in print. Global Perspectives • Graph family traditions • Play row games from around the world. Tic-Tac-Toe, Shisima, and Nine Holes are good examples. o The game Shisima from western Kenya is played on an octagon with lines drawn through the middle. The word Shisima is Kenyan for "body of water." The pieces are called imbalavali (a Kenyan word for water bugs) because the pieces move quickly around the board the way water bugs dart around the surface of a lake. The object is to get three in a row. 21st Century Skills: Creativity and Innovation Critical Thinking and Problem Solving Communication and Collaboration Information Literacy Media Literacy
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.	Life and Career Skills
		• Answer questions such as -
		  o What jobs use these skills?
		  o How do your parents use these skills?
		
		21st Century Themes (as applies to content area):
		Financial, Economic, Business, and Entrepreneurial Literacy
		
		Civic Literacy
		
		Health Literacy

D.	*Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.*	
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.(This applies wherever drawings are mentioned in the Standards.)), sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.	
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.	
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.OA.5 Fluently add and subtract within 5.	
Numbers and Operations in Base Ten K.NBT *E. Work with numbers 11–19 to gain foundations for place value.* 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.	
Measurement and Data K.MD *F. Describe and compare measurable*	

attributes. K.MD.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. K.MD.2 Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference. *For example, directly compare the heights of two children and describe one child as taller/shorter.* *G. Classify objects and count the number of objects in each category.* 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.)	
Geometry K.G *H. Identify and describe shapes (squares,*	

circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres). 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*. K.G.2 Correctly name shapes regardless of their orientations or overall size. *I. Analyze, compare, create, and compose shapes.* 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). K.G.6 Compose simple shapes to form larger shapes.	

Unit Description: Marking Period 3

Standard Counting and Cardinality K.C.C. Operations and Algebraic Thinking 2.OA Number and Operations in Base Ten 2.NBT Measurement and Data K.MD Geometry K.G	
Big Ideas: *Course Objectives / Content Statement(s)* Counting and Cardinality K.CC *A. Know number names and the count sequence.* *B. Count to tell the number of objects.* *C. Compare numbers.* Operations and Algebraic Thinking K.OA *D. Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.* Number Operations and Base Ten K.NBT *E. Work with numbers 11–19 to gain foundations for place value.* Measurement and Data K.MD *F. Describe and compare measurable attributes.* Geometry K.G *H. Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).* *I. Analyze, compare, create, and compose shapes.*	
Essential Questions *What provocative questions will foster inquiry, understanding, and transfer of learning?*	Enduring Understandings *What will students understand about the big ideas?*
• How do adding and subtracting relate to each other? • What do addition and subtraction tell us about the	Students will understand that… • Symbols represent addition and subtraction. • Computation involves taking apart and combining numbers using a variety of approaches.

world?	
Areas of Focus: Proficiencies (CCSS)	Examples, Outcomes, Assessments
Students will: Counting and Cardinality K.CC *A. Know number names and the count sequence.* K.CC.1 Count to 100 by ones and by tens. 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). *B. Count to tell the number of objects.* 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	Instructional Strategies: • Use symbols for addition (+) and subtraction (-) • Make up addition and subtraction problems • Count by 1s through 100 using different starting points • Compare shapes • Skip count by 5s • Provide experiences to compare measurable items • Locate and indentify numbers on a number grid Sample Assessments • Students answer the questions – o Five apples were on the table. I ate two apples. How many apples are on the table now? 5 – 2 = ? o Five apples were on the table. I ate some apples. Then there were three apples. How many apples did I eat? 5 – ?= 3 o Some apples were on the table. I ate two apples. Then there were three apples. How many apples were on the table before? ? – 2 = 3 • Some apples were on the table. I ate two apples. Then there were three apples. How many apples were on the table before? ? – 2 = 3 Interdisciplinary Connections • Plan and prepare a class celebration. • Play "I Spy" with shapes. • Create a 100th Day Museum. • Incorporate numbers into the steps of a how-to book • Read nonfiction books about shapes and names of shapes Technology Integration

	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.	• 100th Day online activities o http://www.starfall.com/n/holiday/hundredthday/play.htm?f o http://teacher.scholastic.com/max/coins/ 21st Century Skills: Creativity and Innovation Critical Thinking and Problem Solving Communication and Collaboration Information Literacy Media Literacy Life and Career Skills 21st Century Themes (as applies to content area): Financial, Economic, Business, and Entrepreneurial Literacy Civic Literacy Health Literacy
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. *C. Compare numbers.* K.CC.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies (include groups with up to ten objects). K.CC.7 Compare two numbers between 1 and 10 presented as written numerals.	
D. Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from. 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.(This applies wherever drawings are mentioned in the Standards.)), sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.	
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.	
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.OA.5 Fluently add and subtract within 5.	
Numbers and Operations in Base Ten K.NBT *E. Work with numbers 11–19 to gain foundations for place value.* 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.	
Measurement and Data K.MD *F. Describe and compare measurable attributes.* K.MD.1 Describe measurable attributes of objects,	

such as length or weight. Describe several measurable attributes of a single object. 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. *G. Classify objects and count the number of objects in each category.* 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.)	
Geometry K.G *H. Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).* 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*.	
K.G.2	Correctly name shapes regardless of their orientations or overall size.	
I. Analyze, compare, create, and compose shapes.		
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).	
K.G.5	Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.	
K.G.6	Compose simple shapes to form larger	

shapes.	

Standard Counting and Cardinality K.C.C. Operations and Algebraic Thinking 2.OA Number and Operations in Base Ten 2.NBT Measurement and Data K.MD Geometry K.G	
Big Ideas: *Course Objectives / Content Statement(s)* Counting and Cardinality K.CC *A. Know number names and the count sequence.* *B. Count to tell the number of objects.* *C. Compare numbers.* Operations and Algebraic Thinking K.OA *D. Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.* Number Operations and Base Ten K.NBT *E. Work with numbers 11–19 to gain foundations for place value.* Measurement and Data K.MD *F. Describe and compare measurable attributes.* Geometry K.G *H. Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).* *I. Analyze, compare, create, and compose shapes.*	
Essential Questions *What provocative questions will foster inquiry, understanding, and transfer of learning?*	Enduring Understandings *What will students understand about the big ideas?*
• How does telling time and counting money help us?	Students will understand that… • Time and money can be measured.

• How are shapes similar and different? • How do adding and subtracting relate to each other?	• Shapes make up the world around us. • Computation involves taking apart and combining numbers using a variety of approaches.
Areas of Focus: Proficiencies (CCSS)	Examples, Outcomes, Assessments
Students will:	Instructional Strategies:

Counting and Cardinality
K.CC
A. Know number names and the count sequence.
K.CC.1 Count to 100 by ones and by tens.
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).
B. Count to tell the number of objects.
K.CC.4 Understand the relationship between numbers and quantities; connect counting to cardinality.
	• Explore the characteristic and value of both pennies and nickels.
	• Become familiar with 2D and 3D shapes.
	• Use counting to tell time.
	• Model and solve comparison story problems with manipulatives.
	• Students answer–
	  o Ask students to tell time to the hour.
	  o Use nickels to skip count by 5s
	  o You have 8 pennies and spend 5 of them on candy. How much money do you have left?
	  o Ask students to sort shapes according to similar attributes.
	  o Use a ten frame filled with dots and have students count the dots and label the tens and ones.
	
	Interdisciplinary Connections
	• Art – use clay to create 3D figures
	• Read "The Tortoise and the Hare" to discuss how time relates to life.
	• Explore maps and their relation to shapes and measurement.
	• Create a number book.
	• Read nonfiction books about shapes
	• Write a poem about a shape (circle, square, etc) describing the shape and examples of the shape found in the real world
	
	Technology Integration

	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.	• Use SMART notebook to practice telling time Media Literacy Integration • Use internet, magazines, catalogs, newspaper, etc for a scavenger hunt of 2D & 3D shapes Global Perspectives • View art from around the world and identify 2D and 3D shapes 21st Century Skills: Creativity and Innovation Critical Thinking and Problem Solving Communication and Collaboration Information Literacy Media Literacy Life and Career Skills 21st Century Themes (as applies to content area): Financial, Economic, Business, and Entrepreneurial Literacy Civic Literacy Health Literacy
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. *C. Compare numbers.* K.CC.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies (include groups with up to ten objects). K.CC.7 Compare two numbers between 1 and 10 presented as written numerals.	
Operations and Algebraic Thinking K.OA *D. Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.* 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.(This applies wherever drawings are mentioned in the Standards.)), sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.	
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