Qtr. 2: Weeks 1-3
October 10 – October 27 (14 days)
Kindergarten, Unit 4: Adding and Subtracting Within 5

UNIT OVERVIEW: ADDING AND SUBTRACTING WITHIN 5
This unit connects students' experience with counting to joining groups of objects. Students begin by modeling addition situations using concrete models and counting strategies to make sense of adding and putting together. They then apply counting strategies and their experience with addition to develop understanding of subtraction as they encounter problems involving taking away. Teachers are encouraged to use equations to model situations, but it is not required of students.

ESSENTIAL QUESTIONS:	**KEY VOCABULARY:**
What happens when I join two groups together? How can I use different combinations of numbers to represent the same quantity? How can I use models to represent addition and subtraction? How can I compare two groups using greater than and less than?	count on, one more, one less, greater than, less than, equal, combine, join, compose, decompose, separate, quantity, add, subtract

Standards/Objectives	
Mastery Standards	**Standards Clarification**
[K-CC.1] Count to 100 by ones and tens. • This standard does not require the recognition of numerals but is focused on the rote number sequence.	**[K-CC.1]** Count to 30 by ones
[K-CC.2] Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	**[K-CC.2]** Count to 20 from any given number besides 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.3]** Represent a number of objects with a written numeral 0-10.
[K-OA.5] Fluently add and subtract within 5.	**[K-OA.5]** Addition and subtraction facts to 5 *Basic Fact Assessment: Addition sums less than or equal to 5*

[K-OA.1] Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations. • Students should demonstrate understanding of how objects can be joined and separated by representing addition and subtraction situations in various ways. This objective focuses on understanding the concept of addition and subtraction rather than reading and solving addition and subtraction number sentences.	**[K-OA.1]** Represent addition and subtraction in various ways within 5.
[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). • Students develop understanding of part-whole relationships as they recognize that a set of objects (5) can be broken into smaller sub-sets (3 and 2) and still remain the total amount. They understand that a set of objects can be broken apart in multiple ways.	**[K-OA.3]** Decompose numbers to 5.
Opportunity for Depth Standards	**Standards Clarification**
[K-CC.4] Understand the relationship between numbers and quantities; connect counting to cardinality. a. When counting objects, say the number names in standard order, pairing each object with one and only one number name and each number name with 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.4]** The number of objects does not change when objects are moved, rearranged, or hidden up to 15. Students implement correct counting procedures by pointing to one object at a time using one counting word for every object.

[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.	**[K-CC.5]** Count and answer questions about "how many" up to 15 items.
[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.	**[K-CC.6]** Compare groups with up to 10 objects.
[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.2]** Addition and subtraction word problems with the result unknown up to 10. **Problems within 5** **Add to Result Unknown** Two bunnies sat on the grass. Three more bunnies hopped there. How many bunnies are on the grass now? $2 + 3 = \square$ **Take From Result Unknown** Five apples were on the table. I ate two apples. How many apples are on the table now? $5 - 2 = \square$
Supporting Standards	**Standards Clarification**
[K-MD.3] Classify objects into given categories; count the number of objects in each category, and sort the categories by count.	**[K-MD.3]** Limit category counts to be less than or equal to 10.

Resources for Quarter 2 Unit 4 Some tasks may need to be modified to MCPSS pacing.			
Engage New York Module 1 – (CC1, CC2, CC3, CC4, CC5) https://www.engageny.org/resource/kindergarten-mathematics-module-1 **Module 4 Topic A – (OA1, OA3)** https://www.engageny.org/resource/kindergarten-mathematics-module-4	**Georgia Standards Unit 1 - (CC1, CC2, CC3, CC4, MD3)** https://www.georgiastandards.org/Georgia-Standards/Frameworks/K-Math-Unit-1.pdf **Unit 2 - (CC5, CC6, MD3)** https://www.georgiastandards.org/Georgia-Standards/Frameworks/K-Math-Unit-2.pdf **Unit 5 - (OA1, OA2, OA3)** https://www.georgiastandards.org/Georgia-Standards/Frameworks/K-Math-Unit-5.pdf	**Howard County** https://hcpss.instructure.com/courses/124/pages/kindergarten-year-at-a-glance *Scroll to find standards and resources*	**Math In Focus** **Chapter 2 Lesson 1-6 – (CC2, CC5, CC6)** **Chapter 3 Lessons 1-2 – (MD3)** **Chapter 4 Lessons 1-6 – (CC3, CC4a, CC4b, CC4c, OA1, OA3)** **Chapter 6 Lessons 1-5 – (CC1)**
Focus Standards for Mathematical Practice			
MP.4 Model with mathematics.			
MP.5 Use appropriate tools strategically.			

Qtr. 2: Weeks 4-6
Qtr. 2: Weeks 4-6 **October 30 – November 17 (14 days)** **Kindergarten, Unit 5: Shapes and Counting Strategies**

UNIT OVERVIEW: SHAPES AND COUNTING STRATEGIES

In this unit, students build on previous work with spatial reasoning, using both positional relationships and formal names of shapes. While discussing the different attributes of shapes, students will model these shapes using concrete materials. Students will also extend the counting sequence to 50 and develop their ability to represent up to 20 objects both numerically and visually. This includes effectively counting objects in more difficult configurations. Students also continue to practice and reinforce addition and subtraction strategies.

ESSENTIAL QUESTIONS:	KEY VOCABULARY:
Why is counting important? How can numbers be represented? What happens when sets are joined or separated? What makes shapes different from each other?	count on, one more, one less, greater than, less than, equal, combine, join, compose, decompose, separate, quantity, add, subtract, square, circle, triangle, rectangle, hexagon, above, below, beside, in front of, behind, next to

Standards/Objectives	
Mastery Standards	**Standards Clarification**
[K-CC.1] Count to 100 by ones and tens. • This standard does not require the recognition of numerals but is focused on the rote number sequence.	**[K-CC.1]** Count to 50 by ones.
[K-CC.2] Count forward beginning from a given number within the known sequence (instead of having to begin at 1) • Students begin a rote forward counting sequence from a number other than 1. • If given the number 4, the student would count "4, 5, 6, 7...20". This standard does not require the recognition of numerals.	**[K-CC.2]** Count to 20 from any given number besides 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.3]** Represent a number of objects with a written numeral 0-10.
[K-OA.1] Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.	**[K-OA.1]** Represent addition and subtraction in various ways to 5.

[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.3]** Decompose numbers up to 5.
[K-OA.5] Fluently add and subtract within 5.	**[K-OA.5]** Addition and subtraction facts to 5. *Basic Fact Assessment: Addition sums less than or equal to 5*
Opportunity for Depth Standards	**Standards Clarification**
[K-CC.4] Understand the relationship between numbers and quantities; connect counting to cardinality. a. When counting objects, say the number names in standard order, pairing each object with one and only one number name and each number name with 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.4]** The number of objects does not change when objects are moved, rearranged, or hidden up to 15.
[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.	**[K-CC.5]** Count up to 15 objects in a straight line, rectangular array, circle or scattered configuration.
[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.	**[K-CC.6]** Compare groups with up to 15 objects.

[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.2]** Add and subtract word problems up to 10 with results unknown. **Problems within 5** **Add to Result Unknown** Two bunnies sat on the grass. Three more bunnies hopped there. How many bunnies are on the grass now? 2 + 3 = ☐ **Take From Result Unknown** Five apples were on the table. I ate two apples. How many apples are on the table now? 5 − 2 = ☐
Supporting Standards	**Standards Clarification**
[K-MD.3] Classify objects into given categories; count the number of objects in each category, and sort the categories by count. • Students identify similarities and differences between objects (size, color, shape), and use the identified attributes to sort objects. Once the objects are sorted, students can count the amount in each set.	**[K-MD.3]** Limit category counts to be less than or equal to 10.
Additional	**Standards Clarification**
[K-G.1] Describe objects in the environment using names of shapes, and describe the relative positions of these objects.	**[K-G.1]** Use familiar objects in the environment to develop spatial reasoning.
[K-G.2] Correctly name shapes regardless of their orientations or overall sizes. • Through numerous experiences exploring and discussing shapes, students begin to understand that certain attributes define what a shape is called (number of sides, number of angles), and that other attributes do not (color, size, orientation).	**[K-G.2]** Name shapes.
[K-G.6] Compose simple shapes to form larger shapes.	**[K-G.6]** Join two shapes to make a different shape.

Resources for Quarter 2 Unit 5			
Some tasks may need to be modified to MCPSS pacing.			
Engage New York Module 4 Topics A, B – (CC1, CC2, CC3, CC4, CC5, CC6) https://www.engageny.org/resource/kindergarten-mathematics-module-4 **Module 2 – (G1, G2, G6)** https://www.engageny.org/resource/kindergarten-mathematics-module-2 **Module 5 Topic A – (OA1, OA2, OA3)** https://www.engageny.org/resource/kindergarten-mathematics-module-5	**Georgia Standards Unit 1 - (CC1, CC2, CC3, MD3)** https://www.georgiastandards.org/Georgia-Standards/Frameworks/K-Math-Unit-1.pdf **Unit 2 - (CC4, CC5, CC6, MD3)** https://www.georgiastandards.org/Georgia-Standards/Frameworks/K-Math-Unit-2.pdf **Unit 3 - (G1, G2, G6)** https://www.georgiastandards.org/Georgia-Standards/Frameworks/K-Math-Unit-3.pdf **Unit 5 - (OA1, OA2, OA3)** https://www.georgiastandards.org/Georgia-Standards/Frameworks/K-Math-Unit-5.pdf	**Howard County** https://hcpss.instructure.com/courses/124/pages/kindergarten-year-at-a-glance *Scroll to find standards and resources*	**Math In Focus** **Chapter 2 Lessons 4-6 – (CC6)** **Chapter 4 Lessons 1-6 – (CC2, CC3, CC4a, CC4b, CC4c, CC5)** **Chapter 5 Lesson 1-2 – (OA1, MD3)** **Chapter 7 Lessons 1 & 4 – (G6)** **Chapter 8 Lessons 1-4 – (CC1)** **Chapter 9 Lesson 4 – (OA2)**
Focus Standards for Mathematical Practice			
MP.2 Reason abstractly and quantitatively.			
MP.7 Look for and make use of structure.			

Qtr. 2: Weeks 7-9
November 27 – December 15 (15 days)
Kindergarten, Unit 6: Describe and Compare Measurable Attributes

UNIT OVERVIEW: **DESCRIBE AND COMPARE MEASURABLE ATTRIBUTES**
In this unit, students explore non-standard measurement concepts using comparative and descriptive vocabulary. Through conversion, students learn to identify and distinguish different measurable attributes. Students continue to practice counting strategies as well as addition and subtraction strategies.

ESSENTIAL QUESTIONS:	**KEY VOCABULARY:**
Why do I need to be able to count objects?	count on, one more, one less, greater than, less than, equal, combine, join,
How can I represent and solve problem situations using objects, pictures, words and numbers?	compose, decompose, separate, quantity, add, subtract, square, circle, triangle, rectangle, hexagon, above, below, beside, in front of, behind,
How can I use different combinations of numbers to represent the same quantity?	next to
What makes shapes different from each other?	

Standards/Objectives	
Mastery Standards	**Standards Clarification**
[K-CC.1] Count to 100 by ones and tens. • This standard does not require the recognition of numerals but is focused on the rote number sequence.	**[K-CC.1]** Count to 50 by ones.
[K-CC.2] Count forward beginning from a given number within the known sequence (instead of having to begin at 1)	**[K-CC.2]** Count to 20 from any given number besides 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). • Students can record the quantity of a set by selecting a number card/tile (numeral recognition) or writing the numeral. Students can also create a set of objects based on a numeral presented. The emphasis is on the use of numerals to represent quantities rather than correct handwriting.	**[K-CC.3]** Represent a number of objects with a written numeral 0-10.
[K-OA.1] Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.	**[K-OA.1]** Represent addition and subtraction in various ways within 5.

[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.3]** Decompose numbers up to 5
[K-OA.5] Fluently add and subtract within 5.	**[K-OA.5]** Addition and subtraction facts to 5 *Basic Fact Assessment: Addition sums less than or equal to 5*
Opportunity for Depth Standards	**Standards Clarification**
[K-CC.4] Understand the relationship between numbers and quantities; connect counting to cardinality. a. When counting objects, say the number names in standard order, pairing each object with one and only one number name and each number name with 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.4]** The number of objects does not change when objects are moved, rearranged, or hidden up to 15.
[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. • Providing multiple arrangements helps children learn how to keep track.	**[K-CC.5]** Count up to 15 objects in a straight line, rectangular array, circle or scattered configuration.
[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.	**[K-CC.6]** Compare groups with up to 15 objects.
[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.2]** Add and subtract word problems within 10 with results unknown

Supporting Standards	Standards Clarification
[K-MD.3] Classify objects into given categories; count the number of objects in each category, and sort the categories by count. • Students identify similarities and differences between objects (size, color, shape), and use the identified attributes to sort objects. Once the objects are sorted, students can count the amount in each set. Once each set is counted, then the student is asked to sort (or group) each of the sets by the amount in each set.	**[K-MD.3]** Limit category counts to be less than or equal to 10.

Additional	Standards Clarification
[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.1]** Use familiar objects in the environment to develop spatial reasoning.
[K-G.2] Correctly name shapes regardless of their orientations or overall sizes.	**[K-G.2]** Name shapes.
[K-G.5] Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.	**[K-G.5]** Build or construct shapes.
[K-MD.1] Describe measurable attributes of objects such as length or weight. Describe several measurable attributes of a single object.	**[K-MD.1]** Students describe measurable attributes of objects, such as length, weight, size, and color.
[K-MD.2] Directly compare two objects, with a measurable attribute in common, to see which object has "more of" or "less of" the attribute, and describe the difference. • Direct comparisons are made when objects are put next to each other, such as two children, two books, two pencils. Students need ample experiences with comparing objects in order to discover the importance of lining up the ends of objects in order to have an accurate measurement.	**[K-MD.2]** Compare objects based on attributes (using longer, shorter, heavier, lighter, taller).

Resources for Quarter 2 Unit 6			
Some tasks may need to be modified to MCPSS pacing.			
Engage New York Module 2 – (G1, G2, G5) https://www.engageny.org/resource/kindergarten-mathematics-module-2 **Module 3 Topics A, B – (MD2)** https://www.engageny.org/resource/kindergarten-mathematics-module-3 **Module 5 Topic B – (OA1, OA2, OA3)** https://www.engageny.org/resource/kindergarten-mathematics-module-5	**Georgia Standards Unit 1 - (CC1, CC2, CC3)** https://www.georgiastandards.org/Georgia-Standards/Frameworks/K-Math-Unit-1.pdf **Unit 2 - (CC4, CC5, CC6)** https://www.georgiastandards.org/Georgia-Standards/Frameworks/K-Math-Unit-2.pdf **Unit 3 - (G1, G2, G5)** https://www.georgiastandards.org/Georgia-Standards/Frameworks/K-Math-Unit-3.pdf **Unit 4 - (MD3, MD4)** https://www.georgiastandards.org/Georgia-Standards/Frameworks/K-Math-Unit-4.pdf **Unit 5 (OA1, OA3)** https://www.georgiastandards.org/Georgia-Standards/Frameworks/K-Math-Unit-5.pdf	**Howard County** https://hcpss.instructure.com/courses/124/pages/kindergarten-year-at-a-glance *Scroll to find standards and resources*	**Math In Focus** **Chapter 3 Lessons 1-4 – (MD1)** **Chapter 4 Lessons 1-6 – (CC2, CC5)** **Chapter 5 Lessons 1-2 – (MD2)** **Chapter 6 Lessons 1-3, 5 – (CC4a, CC4b, CC4c, CC6, OA1)** **Chapter 8 Lessons 1-4 – (CC1, CC3)** **Chapter 12 Lesson 1 – (CC3)** **Chapter 13 Lesson 1 – (G2)** **Chapter 14 Lesson 4 – (CC3)** **Chapter 15 Lessons 1-3 – (MD1, MD2)** **Chapter 16 Lesson 2 – (MD3, G2)** **Chapter 17 Lessons 1-2 – (OA2)** **Chapter 18 Lessons 1-3 – (OA2)**
Focus Standards for Mathematical Practice			
MP.3 Construct viable arguments and critique the reasoning of others.			
MP.5 Use appropriate tools strategically.			