MOBILE COUNTY PUBLIC SCHOOLS
DIVISION OF CURRICULUM & INSTRUCTION
KINDERGARTEN MATHEMATICS INSTRUCTIONAL PLANNING GUIDE
2017-2018: QTR1

Qtr. 1: Weeks 1-3
August 8 – August 25 (14 days)
Kindergarten, Unit 1: Numbers to 10

UNIT OVERVIEW: NUMBERS TO 10

Kindergarteners will practice the count sequence and start to develop understanding of cardinality and one-to-one correspondence. Students are working to make the connection between the verbal number names and quantities. They practice the counting sequence so that when counting a set of objects, their attention can be on matching one count to one object, rather than on retrieving the number words. Students will begin to classify and sort objects into categories, count the objects in each category, and understand that the last number said when counting the objects in each category determines the total. Students use their understanding of numbers and matching numbers with objects to answer "how many" questions about a variety of objects, pictures, and drawings. Students will arrive at an understanding of a number when they acquire cardinality and can connect a number with the numerals and the number word for the quantity they all represent. Students should understand the concepts involved and be able to recognize and/or use them with words, models, pictures, or numbers.

ESSENTIAL QUESTIONS:	**KEY VOCABULARY:**
Why do we need to be able to count objects? What is a numeral? How can I classify objects into categories?	count, number, numeral, ones, quantity, forward, set, sequence, compare, same, different, sort, classify, category, 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 10 by ones.
[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 0-5.

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 10.
[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 objects up to 10 arranged in a line or rectangular array.
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.
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]** Describe shapes and relative position.

Resources for Quarter 1 Unit 1 Some tasks may need to be modified to MCPSS pacing.			
Engage New York Module 1 Topics A, B, C – (CC1, CC2, CC3, CC4, CC5) **https://www.engageny.org/resource/kindergarten-mathematics-module-1**	**Georgia Standards Unit 1 - (CC.1, CC.3, CC.4, CC.5, MD.3)** **https://www.georgiastandards.org/Georgia-Standards/Frameworks/K-Math-Unit-1.pdf** ***Cont'd on next page***	**Howard County** **https://hcpss.instructure.com/courses/124/pages/kindergarten-year-at-a-glance** ***Scroll to find standards and resources***	**Math In Focus** **Chapter 1 Lessons 1-5 - (CC1, CC3, CC4a, CC4b, CC4c, CC5)** **Chapter 3 Lessons 1-2 – (MD3)** **Chapter 5 Lesson 3 – (G1)** **Chapter 6 Lesson 1 – (G1)**

	Unit 3 (G.1) **https://www.georgiastandards.org/Georgia-Standards/Frameworks/K-Math-Unit-3.pdf**		

Focus Standards for Mathematical Practice
MP.6 Attend to precision.
MP.7 Look for and make use of structure.
MP.8 Look for and express regularity in repeated reasoning.

Qtr. 1: Weeks 4-6
August 28 – September 14 (14 days)
Kindergarten, Unit 2: Numbers to 10

UNIT OVERVIEW: NUMBERS TO 10

Students continue to explore the meaning of zero in the context of groups of objects. They will continue to classify and sort objects into categories, count the objects in each category, and understand that the last number said when counting the objects in each category determines the total. They will use their understanding of numbers and matching numbers with objects to answer "how many" questions about a variety of objects, pictures, and drawings. Kindergartens continue to count objects out of a larger set of objects, drawing their attention to part-whole concepts. They will attend to precision in both their explanations and particular strategies used to count.

ESSENTIAL QUESTIONS:	**KEY VOCABULARY:**
How do we use counting in our everyday lives? How can numbers be represented? How can we count objects arranged in different ways? How can I classify objects into categories?	zero, count, number, numeral, ones, quantity, forward, set, sequence, compare, same, different, sort, classify, category, attribute, 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 10 by ones.
[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 rather than correct handwriting.	**[K-CC.3]** Represent a number of objects with a written numeral 0-5.

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 10.
[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. • Some arrangements, such as a line or rectangular array, are easier to get the correct answer but may limit their development of tracking strategies. Providing multiple arrangements helps children learn how to keep track.	**[K-CC.5]** Count up to 10 objects in a straight line, rectangular array, circle or scattered configuration.
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 using terms such as **above, below, beside, in front of, behind, and next to.**	**[K-G.1]** Familiar objects in the environment and a development of spatial reasoning.

[K-G.2] Correctly name shapes regardless of their orientations or overall size.	**[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.

Resources for Quarter 1 Unit 2 **Some tasks may need to be modified to MCPSS pacing.**			
Engage New York Module 1 Topics D, E, F – (CC1, CC2, CC3, CC4, CC5) **https://www.engageny.org/resource/kindergarten-mathematics-module-1** **Module 2, Topic A, B - (G1, G2, MD3)** **https://www.engageny.org/resource/kindergarten-mathematics-module-2**	**Georgia Standards Unit 1 - (CC.1, CC.3, CC.4, CC.5, MD.3)** **https://www.georgiastandards.org/Georgia-Standards/Frameworks/K-Math-Unit-1.pdf** **Unit 3 - (G.1, G.2, G.5)** **https://www.georgiastandards.org/Georgia-Standards/Frameworks/K-Math-Unit-3.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 1 Lessons 1-5 – (CC1, CC3, CC4a, CC4b, CC4c, CC5)** **Chapter 2 Lessons 1-4 – (CC3, CC4a, CC4b, CC4c)** **Chapter 4 Lessons 1-6 – (CC1)** **Chapter 5 Lessons 1-3 – (MD3, G3)** **Chapter 6 Lesson 1 – (G3)** **Chapter 7 Lessons 1-5 – (G2, G5)**

Focus Standards for Mathematical Practice
MP.6 Attend to precision.
MP.7 Look for and make use of structure.
MP.8 Look for and express regularity in repeated reasoning.

Qtr. 1: Weeks 7-9
September 18 – October 16 (15 days)
Kindergarten, Unit 3: Numbers to 20

UNIT OVERVIEW: NUMBERS TO 20

Students should move from concrete to pictorial representations of objects. They begin to order and match numeral and pictorial representations for numbers 1–20. Students begin to learn, practice, and understand that each successive number name refers to a quantity that is one greater. Students can internalize the concept of one more and one less through concrete exercises that allow them to arrange and analyze objects or pictorial representations. They might be given a group of objects to count on paper in a scattered or circular formation and then asked to add 1 more object to the group, or cross one out, and count again. This concept is extended as students analyze and draw sequences of quantities of 1 more beginning with numbers other than 1.

ESSENTIAL QUESTIONS:	**KEY VOCABULARY:**
How do you know how many objects you have? How can I represent a number of objects? How can we count one more? How can I sort objects? What shapes can I find in my environment?	one more, one less, order, zero, count, number, numeral, ones, quantity, forward, set, sequence, compare, same, different, sort, classify, category, attribute, 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 20 by ones.
[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 0-5.

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 10.
[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. • Some arrangements, such as a line or rectangular array, are easier to get the correct answer but may limit their development of tracking strategies. Providing multiple arrangements helps children learn how to keep track.	**[K-CC.5]** Count up to 10 objects in a straight line, rectangular array, circle or scattered configuration.
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. • 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]** Familiar objects in the environment and a development of 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

Resources for Quarter 1 Unit 3 Some tasks may need to be modified to MCPSS pacing.			
Engage New York Module 1 Topics G, H – (CC1, CC2, CC3, CC4, CC5) **https://www.engageny.org/resource/kindergarten-mathematics-module-1** **Module 2 Topic C – (G1, G2, G5)** **https://www.engageny.org/resource/kindergarten-mathematics-module-2**	**Georgia Standards Unit 1 (CC.1, CC.3, CC.4, CC.5, MD.3)** **https://www.georgiastandards.org/Georgia-Standards/Frameworks/K-Math-Unit-1.pdf** **Unit 3 (G.1, G.2, G.5)** **https://www.georgiastandards.org/Georgia-Standards/Frameworks/K-Math-Unit-3.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 1-4 – (CC3, CC4a, CC4b, CC4c, CC5)** **Chapter 5 Lesson 1 – (CC1)** **Chapter 7 Lesson 1, 3-5 – (G2)** **Chapter 16 Lesson 2 – (MD3)**

Focus Standards for Mathematical Practice
MP.7 Look for and make use of structure.
MP.8 Look for and express regularity in repeated reasoning.