

## 2016-17 Math Curriculum K-1

### **August 21-25 & August 28- September 1**

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*.

K.CC.B.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.

### **September 5-8 & 11-15**

K.CC.B.5: Count to answer questions about “How many?” when 20 or fewer objects are 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 to 20, count out that many objects

1.OA.C.5: Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).

K.G.A.2: Correctly name shapes regardless of their orientations or overall size.

### **September 18-22 & September 25-29**

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).

1.OA.A.2: Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

K.G.B.5: Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.

1.G.A.1: Distinguish between defining attributes (triangles are closed and 3 sided) versus non-defining attributes (color, orientation, overall size) for two-dimensional shapes; build and draw shapes that possess defining attributes.

## **October 2-6 & October 9-13**

K.G.B.6: Use simple shapes to form composite shapes. *For example, "Can you join these two triangles with full sides touching to make a rectangle?"*

K.NBT.B.2: Demonstrate understanding of addition and subtraction within 10 using place value. *See Table 1.*

1.OA.C.6: Fluently add and subtract within 10.

1.OA.D.7: Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. *For example, which of the following equations are true and which are false?  $6 = 6$ ,  $7 = 8 - 1$ ,  $5 + 2 = 2 + 5$ ,  $4 + 1 = 5 + 2$ .*

1.MD.B.3b Identify coins by name and value (pennies, nickels, dimes and quarters).

## **October 16-20 & 23-27**

K.NBT.A.1: Compose and decompose numbers from 11 to 19 into ten ones and additional ones by using objects, drawings and/or equations. Understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones (e.g.,  $18 = 10 + 8$ ).

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. (Include groups with up to ten objects.)

1.G.A.3: Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters. Describe the whole as two of, or four of the shares. Understand that decomposing into more equal shares creates smaller shares.

1.MD.B.3a: Tell and write time in hours and half-hours using analog and digital clocks.

## **October 30- November 3 & November 6-9**

1.NBT.B.2: Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:

- a. 10 can be thought of as a group of ten ones — called a “ten.”
- b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.
- c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).

K.MD.A.1: Describe measurable attributes of a single object (e.g., length and weight).

K.CC.A.1: Count to 100 by ones and by tens.

## **November 13-17 & November 27 – December 1**

K.CC.C.7: Compare two numbers between 0 and 10 presented as written numerals.

K.CC.A.2: Count forward from a given number other than one, within the known sequence (e.g., "Starting at the number 5, count up to 11.").

1.NBT.A.1: Count to 120 by 1's, 2's, and 10's starting at any number less than 100. In this range, read and write numerals and represent a number of objects with a written numeral.

1.NBT.B.3: Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols  $>$ ,  $=$ , and  $<$ .

## **December 4-8 & 11-15**

K.OA.A.1: Represent addition and subtraction concretely. See *Table 1*.

1.OA.D.8: Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers.

*For example, determine the unknown number that makes the equation true in each of the equations  $8 + ? = 11$ ,*

*$5 = \square - 3$ ,  $6 + 6 = \square$ .*

## **December 18-21**

Review and Catch-Up

## **January 8-12 & 16-19**

K.OA.A.2: Solve addition and subtraction word problems, and add and subtract within 10.

1.OA.A.1: Use addition and subtraction within 20 to solve word problems with unknowns in all positions (e.g., by using objects, drawings, and/or equations with a symbol for the unknown number to represent the problem).

## **January 22-26 & January 29-February 2**

K.OA.A.3: Decompose numbers less than or equal to 10 into pairs in more than one way (e.g., using fingers, objects, symbols, tally marks, drawings, expressions).

K.MD.B.3: Classify objects into given categories; count the number in each category and sort the categories by count. (Note: limit category counts to be less than or equal to 10.)

1.MD.C.4: Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

## **February 5-9 & 12-16**

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., using fingers, objects, symbols, tally marks, drawings, or equation).

K.MD.A.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 (e.g., directly compare the length of 10 cubes to a pencil and describe one as longer or shorter).

1.MD.A.1: Order three objects by length; compare the lengths of two objects indirectly by using a third object.

## **February 19-21 & February 26- March 2 & March 5-9**

K.OA.A.5: Fluently add and subtract within 5.

K.G.A.3: Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”).

1.MD.A.2: Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. *Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.*

## **March 12-16 & 19-23**

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).

1.NBT.C.5: Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count.

## **March 26-28 & April 3-6**

1.G.A.2: Compose two-dimensional shapes or three-dimensional shapes to create a composite shape.

1.NBT.C.6: Subtract multiples of 10 in the range of 10 to 90 (positive or zero differences), using objects or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. Relate the strategy to a written form.

## **April 9-13, April 16-20**

1.OA.B.3: Apply properties of operations (commutative and associative properties of addition) as strategies to add and subtract through 20. (Students need not use formal terms for these properties.)

1.OA.B.4: Understand subtraction as an unknown-addend problem within 20 (e.g., subtract  $10 - 8$  by finding the number that makes 10 when added to 8).

## **April 23-27 & April 30- May 4**

1.NBT.C.4: Demonstrate understanding of addition within 100, connecting objects or drawings to strategies based on place value (including multiples of 10), properties of operations, and/or the relationship between addition and subtraction. Relate the strategy to a written form. See *Table 1*.

Review