Youngstown
City School District

'Honoring the Past, Embracing the Future'

Ohio's Learning Standards
Mathematics
Scope and Sequence
Grade K

Mathematics Standards Scope and Sequence, Grade K

Quarter	1		2		3		4	
Unit	1	2	3	4	5	6	7	8
Counting and Cardinality	**K.CC.1** **K.CC.2** **K.CC.3** **K.CC.4** **K.CC.5** **K.CC.6**	K.CC.1 K.CC.2 K.CC.3 K.CC.4 K.CC.5 K.CC.6 **K.CC.7**	K.CC.1 K.CC.2 K.CC.3 K.CC.5 K.CC.7	K.CC.1 K.CC.2 K.CC.3 K.CC.5	K.CC.1 K.CC.2 K.CC.5	K.CC.1		
Operations and Algebraic Thinking				**K.OA.1** **K.OA.3** **K.OA.4**	K.OA.1 **K.OA.2** K.OA.3 K.OA.4 **K.OA.5**	K.OA.1 K.OA.2 K.OA.3 K.OA.4 K.OA.5		
Numbers and Operations in Base Ten						**K.NBT.1**		
Measurement and Data			**K.MD.3**				**K.MD.1** **K.MD.2**	
Geometry		**K.G.1**	K.G.1 **K.G.2** **K.G.4** **K.G.5** **K.G.6**					K.G.1 K.G.2 **K.G.3** K.G.4
Required Fluency	Add/Subtract within 5							
Mathematical Practices	Standards for Mathematical Practices 1-8 should be addressed in every unit throughout the year. Teacher's discretion determines sequence.							
Bold font indicates the first time a standard is introduced in the school year.								

Grade K – Quarter 1

Unit 1

Counting and Cardinality

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

K.CC.2 Count forward within 100 beginning from any given number other than 1.

K.CC.3 Write numerals 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.4 Understand the relationship between numbers and quantities; connect counting to cardinality using a variety of objects including pennies.

a. When counting objects, establish a one-to-one relationship by saying 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 and that 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.

K.CC.6 Orally identify (without using inequality symbols) whether the number of objects in one group is greater/more than, less/fewer than, or the same as the number of objects in another group, not to exceed 10 objects in each group.

Mathematical Practices

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.

Grade K – Quarter 1

Unit 2

Counting and Cardinality

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

K.CC.2 Count forward within 100 beginning from any given number other than 1.

K.CC.3 Write numerals 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.4 Understand the relationship between numbers and quantities; connect counting to cardinality using a variety of objects including pennies.

a.   When counting objects, establish a one-to-one relationship by saying 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 and that 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.

K.CC.6 Orally identify (without using inequality symbols) whether the number of objects in one group is greater/more than, less/fewer than, or the same as the number of objects in another group, not to exceed 10 objects in each group.

K.CC.7 Compare (without using inequality symbols) two numbers between 0 and 10 when presented as written numerals.

Geometry

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.*

Mathematical Practices

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.

Grade K – Quarter 2

Unit 3

Counting and Cardinality

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

K.CC.2 Count forward within 100 beginning from any given number other than 1.

K.CC.3 Write numerals 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.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.7 Compare (without using inequality symbols) two numbers between 0 and 10 when presented as written numerals.

Measurement and Data

K.MD.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. The number of objects in each category should be less than or equal to ten. Counting and sorting coins should be limited to pennies.

Geometry

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").

K.G.4 Describe and compare two- or three-dimensional shapes, in different sizes and orientations, using informal language to describe their commonalities, differences, parts, and other attributes**.**

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 Combine simple shapes to form larger shapes.

Mathematical Practices

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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.

Grade K – Quarter 2

Unit 4

Counting and Cardinality
K.CC.1 Count to 100 by ones and by tens.
K.CC.2 Count forward within 100 beginning from any given number other than 1.
K.CC.3 Write numerals 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.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.

Operations and Algebraic Thinking
K.OA.1 Represent addition and subtraction with objects, fingers, mental images, drawings, sounds such as claps, acting out situations, verbal explanations, expressions, or equations. Drawings need not show details, but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the Standards.).
K.OA.3 Decompose numbers and record compositions for numbers less than or equal to 10 into pairs in more than one way by using objects and, when appropriate, drawings or equations.
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, when appropriate, an equation.

Mathematical Practices
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.

Grade K – Quarter 3

Unit 5

Counting and Cardinality
K.CC.1 Count to 100 by ones and by tens.
K.CC.2 Count forward within 100 beginning from any given number other than 1.
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.

Operations and Algebraic Thinking
K.OA.1 Represent addition and subtraction with objects, fingers, mental images, drawings, sounds such as claps, acting out situations, verbal explanations, expressions, or equations. Drawings need not show details, but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the Standards.).
K.OA.2 Solve addition and subtraction problems (written or oral), and add and subtract within 10 by using objects or drawings to represent the problem.
K.OA.3 Decompose numbers and record compositions for numbers less than or equal to 10 into pairs in more than one way by using objects and, when appropriate, drawings or equations.
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, when appropriate, an equation.
K.OA.5 Fluently^G add and subtract within 5.

Mathematical Practices
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.

Grade K – Quarter 3

Unit 6

Counting and Cardinality
K.CC.1 Count to 100 by ones and by tens.

Operations and Algebraic Thinking
K.OA.1 Represent addition and subtraction with objects, fingers, mental images, drawings, sounds such as claps, acting out situations, verbal explanations, expressions, or equations. Drawings need not show details, but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the Standards.).
K.OA.2 Solve addition and subtraction problems (written or oral), and add and subtract within 10 by using objects or drawings to represent the problem.
K.OA.3 Decompose numbers and record compositions for numbers less than or equal to 10 into pairs in more than one way by using objects and, when appropriate, drawings or equations.
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, when appropriate, an equation.
K.OA.5 Fluently^G add and subtract within 5.

Numbers and Operations in Base Ten
K.NBT.1 Compose and decompose numbers from 11 to 19 into a group of ten ones and some further ones by using objects and, when appropriate, drawings or equations; understand that these numbers are composed of a group of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.

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7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Unit 7

Measurement and Data
K.MD.1 Identify and describe measurable attributes (length, weight, and height) of a single object using vocabulary terms such as long/short, heavy/light, or tall/short.
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. *For example, directly compare the heights of two children, and describe one child as taller/shorter.*

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6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Grade K – Quarter 3

Unit 8

Geometry

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").

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

K.G.4 Describe and compare two- or three-dimensional shapes, in different sizes and orientations, using informal language to describe their commonalities, differences, parts, and other attributes**.**

Mathematical Practices
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