Kentucky Mathematics

Grade K

Adopted 2019

Standards for Mathematical Practice

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

Counting and Cardinality

Know number names and the count sequence.

1. Count KY.K.CC.1
   a. Count to 100 by ones and by tens. KY.K.CC.1.A
   b. Count backwards from 30 by ones. KY.K.CC.1.B
2. Count forward beginning from a given number within the known sequence within 100 (instead of having to begin at 1). KY.K.CC.2
3. Represent numbers. KY.K.CC.3
   a. Write numbers from 0 to 20. KY.K.CC.3.A
   b. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). KY.K.CC.3.B

Count to tell the number of objects.

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4. Understand the relationship between numbers and quantities; connect counting to cardinality. KY.K.CC.4
    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. KY.K.CC.4.A
    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. KY.K.CC.4.B
    c. Understand that each successive number name refers to a quantity that is one larger. KY.K.CC.4.C
5. Given a number from 1-20, count out that many objects. KY.K.CC.5
    a. Count to answer "how many?" questions with as many as 20 things arranged in a line, a rectangular array, or a circle. KY.K.CC.5.A
    b. Count to answer "how many?" questions with as many as 10 things in a scattered configuration. KY.K.CC.5.B

Compare numbers.

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. KY.K.CC.6
7. Compare two numbers between 1 and 10 presented as written numerals. KY.K.CC.7

Operations and Algebraic Thinking

Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

1. Represent addition and subtraction with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations. KY.K.OA.1
2. Solve addition and subtraction word problems and add and subtract within 10 by using objects or drawings to represent the problem. KY.K.OA.2
3. Decompose numbers less than or equal to 10. KY.K.OA.3
    a. Decompose numbers into two groups in more than one way by using objects or drawings and record each decomposition by a drawing or equation. KY.K.OA.3.A
    b. Use objects or drawings to demonstrate equality as the balancing of quantities. KY.K.OA.3.B
4. For any number from 1 to 9, find the number that makes 10 when added to the given number by using objects or drawings and record the answer with a drawing or equation. KY.K.OA.4
5. Fluently add and subtract within 5. KY.K.OA.5

Numbers and Op

Working with numbers 11-19 to gain foundations for place value.

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1. Compose and decompose numbers from 11 to 19 using quantities (numbers with units) of ten ones and some further ones. Understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones. KY.K.NBT.1

Measurement and Data

Describe and compare measurable attributes.

1. Describe measurable attributes (length, height, weight, width, depth) of an object or a set of objects using appropriate vocabulary. KY.K.MD.1
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. KY.K.MD.2

Classify objects and count the number of objects in each category.

3. Classify and sort objects or people by attributes. Limit objects or people in each category to be less than or equal to 10. KY.K.MD.3

Identify coins by name.

4. Recognize and identify coins by name (penny, nickel, dime, quarter). KY.K.MD.4

Geometry

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

1. Name and describe shapes in the environment. KY.K.G.1
    a. Describe objects in the environment using names of shapes. KY.K.G.1.A
    b. Describe the relative positions of these objects using terms above, below, in front of, behind and next to. KY.K.G.1.B
2. Correctly name shapes regardless of orientations or overall size. KY.K.G.2
3. Identify shapes as two-dimensional or three-dimensional. KY.K.G.3

Analyze, compare, create and compose shapes.

4. Describe the similarities, differences and attributes of two and three dimensional shapes using different sizes and orientations. KY.K.G.4
5. Model shapes in the world by building figures from components and drawing shapes. KY.K.G.5
6. Compose simple shapes to form larger shapes. KY.K.G.6