Alabama Mathematics

Grade K

Adopted 2019

Student Mathematical Practices

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

Foundations of Counting

A. **Know number names and the count sequence.** K.FC.A

1. Count forward orally from 0 to 100 by ones and by tens. Count backward orally from 10 to 0 by ones. K.FC.A.1
2. Count to 100 by ones beginning with any given number between 0 and 99. K.FC.A.2
3. Write numerals from 0 to 20. K.FC.A.3
   a. Represent 0 to 20 using concrete objects when given a written numeral from 0 to 20 (with 0 representing a count of no objects). K.FC.A.3.A

B. Count to tell the number of objects. K.FC.B

. Connect counting to cardinality using a variety of concrete objects. K.FC.B.4.

a. Say the number names in consecutive order when counting objects. K.FC.B.4.A

b. Indicate that the last number name said tells the number of objects counted in a set. K.FC.B.4.B

c. Indicate that the number of objects in a set is the same regardless of their arrangement or the order in which they were counted. K.FC.B.4.C

d. Explain that each successive number name refers to a quantity that is one larger. K.FC.B.4.D

5. Count to answer "how many?" questions. K.FC.B.5

a. Count using no more than 20 concrete objects arranged in a line, a rectangular array, or a circle. K.FC.B.5.A

b. Count using no more than 10 concrete objects in a scattered configuration. K.FC.B.5.B

c. Draw the number of objects that matches a given numeral from 0 to 20. K.FC.B.5.C

C. Compare numbers. K.FC.C

6. Orally identify whether the number of objects in one group is greater/more than, less/fewer than, or equal/the same as the number of objects in another group, in groups containing up to 10 objects, by using matching, counting, or other strategies. K.FC.C.6

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

Operations and Algebraic Thinking

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

8. Represent addition and subtraction up to 10 with concrete objects, fingers, pennies, mental images, drawings, claps or other sounds, acting out situations, verbal explanations, expressions, or equations. K.OA.A.8

9. Solve addition and subtraction word problems, and add and subtract within 10, by using concrete objects or drawings to represent the problem. K.OA.A.9

10. Decompose numbers less than or equal to 10 into pairs of smaller numbers in more than one way, by using concrete objects or drawings, and record each decomposition by a drawing or equation. K.OA.A.10

11. For any number from 0 to 10, find the number that makes 10 when added to the given number, by using concrete objects or drawings, and record the answer with a drawing or equation. K.OA.A.11

12. Fluently add and subtract within 5. K.OA.A.12

B. Understand simple patterns. K.OA.B

13. Duplicate and extend simple patterns using concrete objects. K.OA.B.13

Operations with Numbers

A. Work with numbers 11-19 to gain foundations for place value. K.ON.A

A14. Compose and decompose numbers from 11 to 19 by using concrete objects or drawings to demonstrate understanding that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones. K.ON.A14

Data Analysis

A. Collect and analyze data and interpret results. K.DA.A

15. Classify objects into given categories of 10 or fewer; count the number of objects in each category and sort the categories by count. K.DA.A.15

    a. Categorize data on Venn diagrams, pictographs, and "yes-no" charts using real objects, symbolic representations, or pictorial representations. K.DA.A.15.A

Measurement

A. Describe and compare measurable attributes. K.M.A

16. Identify and describe measurable attributes (length, weight, height) of a single object using vocabulary such as long/short, heavy/light, or tall/short. K.M.A.16

17. 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. K.M.A.17

Geometry

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

18. 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.A.18

19. Correctly name shapes regardless of their orientations or overall sizes. K.G.A.19

20. Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid"). K.G.A.20

B. Analyze, compare, create, and compose shapes. K.G.B

21. Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (number of sides and vertices or "corners"), and other attributes. K.G.B.21

22. Model shapes in the world by building them from sticks, clay balls, or other components and by drawing them. K.G.B.22

23. Use simple shapes to compose larger shapes. K.G.B.23