Tennessee Mathematics

Grade K

Adopted 2023

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

Literacy Skills for Mathematical Proficiency

1. **Use multiple reading strategies.** LS.1
2. **Understand and use correct mathematical vocabulary.** LS.2
3. **Discuss and articulate mathematical ideas.** LS.3
4. **Write mathematical arguments.** LS.4

Grade K

Counting and Cardinality

A. Know number names and the counting sequence. K.CC.A

1. Count to 100 by ones, fives, and tens. Count backward from 10. K.CC.A.1
2. Count forward by ones beginning from any given number within the known sequence (instead of having to begin at 1). K.CC.A.2
3. Write numbers from 0 to 20. Represent a quantity of objects with a written number 0-20. K.CC.A.3
4. Recognize, describe, extend, and create patterns and explain a simple rule for a pattern using concrete materials. Analyze the structure of the repeating pattern by identifying the unit (core) of the pattern. K.CC.A.4

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

5. Understand the relationship between numbers and quantities; connect counting to cardinality. K.CC.B.5
   a. When counting objects 1-20, say the number names in the standard order, using one-to-one correspondence. K.CC.B.5.A
   b. Recognize 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. K.CC.B.5.B
   c. Recognize that each successive number name refers to a quantity that is one greater and each previous number is one less. K.CC.B.5.C
6. Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, 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.B.6

C. Compare numbers. K.CC.C

7. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group. K.CC.C.7
8. Compare two given numbers up to 10, when written as numerals, using the terms greater than, less than, or equal to. (Students need not use comparison symbols here.) K.CC.C.8

Operations and Algebraic Thinking

A. Represent and solve problems involving addition and subtraction. K.OA.A

1. Represent addition and subtraction with objects, fingers, drawings, acting out situations, verbal explanations, expressions, or equations. K.OA.A.1
2. Add and subtract within 10 to solve contextual problems with result/total unknown involving situations of add to, take from, and put together/take apart. Use objects, drawings, or equations to represent the problem. K.OA.A.2
3. Decompose numbers less than or equal to 10 into addend pairs in more than one way (e.g., 5 = 2 + 3 and 5 = 4 + 1) by using objects or drawings. Record each decomposition using a drawing or writing an equation. K.OA.A.3
4. Find the number that makes 10, when added to any given number, from 1 to 9 using objects or drawings. Record the answer using a drawing or writing an equation. K.OA.A.4
5. Use mental strategies flexibly to develop fluency in addition and subtraction within 10. K.OA.A.5

Number and Operations in Base Ten

A. Work with numbers 11–19 to gain foundations for place value. K.NBT.A

1. Compose and decompose numbers from 11 to 19 into a group of ten ones and some more ones by using objects or drawings (e.g., 18 equals 10 + 8). Record the composition or decomposition using a drawing or by writing an equation. K.NBT.A.1

Measurement and Data

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

1. Describe the measurable attributes of an object, such as length (long/short), height (tall/short), or weight (heavy/light). K.MD.A.1
2. Directly compare two objects with a measurable attribute in common, to describe which object has more of/less of the attribute. K.MD.A.2

B. Work with money. K.MD.B

3. Identify the penny, nickel, dime, and quarter based on their attributes (size and color) and recognize the value of each. K.MD.B.3

C. Classify objects and count the number of objects in each category. K.MD.C

4. Sort a collection of objects into a given category, with 10 or fewer in each category. Compare the categories by group size. K.MD.C.4

Geometry

A. Identify and describe shapes and solids. K.G.A

1. Describe objects in the environment using names of shapes and solids (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres). Describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, between, and next to. K.G.A.1
2. Correctly name shapes and solids (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres) regardless of their orientations or overall size. K.G.A.2
3. Identify shapes (squares, circles, triangles, rectangles, and hexagons) as two-dimensional and solids (cubes, cones, cylinders, and spheres) as three-dimensional. K.G.A.3

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

4. Describe similarities and differences between two- and three-dimensional shapes/solids, in different sizes and orientations. K.G.B.4
5. Model shapes/solids in the world by building or drawing them. K.G.B.5
6. Compose a figure using simple shapes/solids and identify smaller shapes/solids within the figure. K.G.B.6