West Virginia Mathematics

Grade K

Adopted 2024

Mathematical Habits of Mind

MHM1. Make sense of problems and persevere in solving them. MHM1

MHM2. Reason abstractly and quantitatively. MHM2

MHM3. Construct viable arguments and critique the reasoning of others. MHM3

MHM4. Model with mathematics. MHM4

MHM5. Use appropriate tools strategically. MHM5

MHM6. Attend to precision. MHM6

MHM7. Look for and make use of structure. MHM7

MHM8. Look for and express regularity in repeated reasoning. MHM8

Kindergarten

Counting and Cardinality

1. Know number names and the count sequence. K.CC.1
    1. Count to 100 by ones and by tens. M.K.1
    2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1). M.K.2
    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). M.K.3
2. Count to tell the number of objects. K.CC.2
    4. Understand the relationship between numbers and quantities; connect counting to cardinality. M.K.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. M.K.4.A
        b. Understand that the last number name said tells the number of objects counted and the number of objects is the same regardless of their arrangement or the order in which they were counted. M.K.4.B
        c. Understand that each successive number name refers to a quantity that is one larger. M.K.4.C
    5. Count to answer questions (e.g., "How many?") 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. M.K.5
3. Compare numbers. K.CC.3
    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 (e.g., by using matching and counting strategies). M.K.6
    7. Compare and order two numbers between 0-20 presented as written numerals. M.K.7

Operations and Algebraic Thinking

1. Understand addition as putting together and adding to and understand subtraction as taking apart and taking from. K.OAT.1

    8. Represent addition and subtraction with strategies using objects, fingers, mental images, drawings, sounds (e.g., claps), and acting out situations, verbal explanations, expressions, and equations. M.K.8

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

    10. Decompose numbers less than or equal to 10 into pairs in more than one way by using objects or drawings and record each decomposition by a drawing or equation (e.g., 5 = 2 + 3 and 5 = 4 + 1). M.K.10

    11. 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. M.K.11

    12. Fluently (efficiently, flexibly, and accurately) add and subtract within 5 using various strategies. M.K.12

2. Recognize patterns. K.OAT.2

    13. Recognize and create recognizable patterns using colors, shapes, sizes, and sounds with support and guidance. M.K.13

Number and Operations in Base Ten

1. Work with numbers 11-19 to gain foundations for place value. K.NOBT.1

    14. Compose and decompose numbers from 11 to 19 into ten ones and larger two-digit numbers by using objects or drawings and record each composition or decomposition by a drawing or equation (e.g., 18 = 10 + 8); understand that these numbers are composed of ten ones (one ten) and one, two, three, four, five, six, seven, eight, or nine ones. M.K.14

Measurement and Data

1. Describe and compare measurable attributes. K.MD.1
    15. Describe measurable attributes of objects, such as length or weight and describe several measurable attributes of a single object. M.K.15
    16. 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. M.K.16
2. Classify objects and count the number of objects in each category. K.MD.2
    17. Classify objects into given categories, count the numbers of objects in each category, and sort the categories by count. Category counts should be limited to less than or equal to 10. (e.g., Identify coins and sort them into groups of 5s or 10s.) M.K.17
3. Work with money. K.MD.3
    18. Identify coins: penny, nickel, dime, quarter. M.K.18
    19. Count pennies to 20. M.K.19

Geometry

1. Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres). K.G.1
    20. 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. M.K.20
    21. Correctly name shapes regardless of their orientations or overall size. M.K.21
    22. Using real-life objects, identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid"). M.K.22
2. Analyze, compare, create, and compose shapes. K.G.2
    23. 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). M.K.23
    24. Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes. M.K.24
    25. Compose simple shapes to form larger shapes (e.g., "Can these two triangles, with full sides touching, join to make a rectangle?"). M.K.25