Maryland Mathematics

Grade 2

Number and Operation Sense NOS

A UNDERSTAND PLACE VALUE AND REPRESENTATIONS OF NUMBERS. 2.NOS.A

1. Use understanding of 100 as a bundle of ten tens, called a “hundred,” and compose and decompose three-digit numbers. 2.NOS.A.1
   - a. Compose and decompose three-digit numbers into hundreds, tens, and ones by using objects, drawings, and/or equations (e.g., 328 = 300 + 20 + 8 or 328 is thirty-two tens and 8 ones). 2.NOS.A.1.A
   - b. Describe a given number as the correct number of hundreds, tens, and ones (e.g., 328 is three hundreds, two tens and eight ones). 2.NOS.A.1.B
   - c. Compose and decompose three-digit numbers in more than one way (e.g., 439 = 400 + 39 or 439 = 435 + 4). 2.NOS.A.1.C
2. Count forward and backward within 1000 starting with any number. 2.NOS.A.2
   - a. Skip-count forward and backwards by 2s, 5s, 10s, and 100s. 2.NOS.A.2.A
   - b. Use skip-counting to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns. 2.NOS.A.2.B
3. Read and write numbers within 1000 using base-ten numerals, number names, and expanded form. 2.NOS.A.3
4. Compare two numbers within 1000 by reasoning about the values of the hundreds, tens, and ones digits and/or the location of the numbers on a number line. Record the results of comparisons with the symbols , =, and . 2.NOS.A.4
5. Estimate quantities by reasoning about their location on a number line, their relationship to benchmark numbers (e.g. 10, 50, 100), and to assess reasonableness of sums and differences. 2.NOS.A.5

B ADD AND SUBTRACT WITHIN 20. 2.NOS.B

6. Recall or quickly derive addition and subtraction facts within 20. 2.NOS.B.6
   - a. Use counting, make ten, and ten more/less, doubling strategies to add and subtract. 2.NOS.B.6.A
   - b. Use the use ten strategy (e.g., think of 9 + 1 + 6 to solve 9 + 7) and doubles plus one strategy (e.g., think of 4 + 4 + 1 to solve 4 + 5) to add and subtract. 2.NOS.B.6.B
   - c. Use the inverse operation to add and subtract (e.g. think of 7 + ? = 15 to solve 15 – 7 = ?). 2.NOS.B.6.C

C USE REPRESENTATIONS, PLACE VALUE UNDERSTANDING, AND PROPERTIES OF OPERATIONS TO ADD AND SUBTRACT. 2.NOS.C

7 Represent whole number sums and differences within 100 using lengths on a number line. 2.NOS.C.7

8 Fluently add and subtract within 100. 2.NOS.C.8

a Use strategies based on counting (e.g., counting on, counting back) and place value (e.g., partial sums, making tens, etc.) to add and subtract. 2.NOS.C.8.A

b Use properties of operations, and the inverse relationship between addition and subtraction to add and subtract. 2.NOS.C.8.B

c Determine and explain when a strategy is most efficient. 2.NOS.C.8.C

9 Add and subtract within 1000, recognizing that when adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds. 2.NOS.C.9

a Use concrete models or drawings to add and subtract. 2.NOS.C.9.A

b Use strategies based on place value (counting on, partial sums, making tens, etc.) to add and subtract. 2.NOS.C.9.B

c Use properties of operations, and/or the relationship between addition and subtraction to add and subtract. 2.NOS.C.9.C

d Represent and explain the calculation by connecting the strategy used to the meaning of addition and subtraction. 2.NOS.C.9.D

10 Mentally add and subtract 10 or 100 to a given number 100-900. 2.NOS.C.10

D UNDERSTAND EQUAL PARTS OF A WHOLE. 2.NOS.D

11 Partition circles and rectangles into equal shares (halves, thirds, and fourths) recognizing that equal shares do not need to have the same shape. Determine how many equal shares are needed to make a whole (e.g., three thirds). 2.NOS.D.11

Algebraic Thinking AT

A SOLVE PROBLEMS INVOLVING ADDITION AND SUBTRACTION. 2.AT.A

1 Use addition and subtraction within 100 to solve one-step problems in context involving an unknown in any situation or position by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. 2.AT.A.1

2 Use addition and/or subtraction within 100 to solve twostep problems in context involving any situation or position of an unknown by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. 2.AT.A.2

B RECOGNIZE PATTERNS IN NUMBERS. 2.AT.B

3 Determine whether a group of objects within 20 has an odd or even number of members (e.g., by pairing objects or counting them by 2s). Write an equation to express an even number as a sum of two equal addends. 2.AT.B.3

Geometric Reasoning and Measurement GR

A MEASURE AND ESTIMATE LENGTHS IN STANDARD UNITS. 2.GR.A

1. Measure the length of an object to the nearest whole unit by using appropriate tools (e.g., rulers, yardsticks, meter sticks, and measuring tapes). 2.GR.A.1
2. Measure the length of an object twice using different length units. Compare the two measurements relative to the size of the unit chosen. 2.GR.A.2
3. Estimate lengths using units of inches, feet, centimeters, and meters. 2.GR.A.3
4. Measure to determine how much longer one object is than another, expressing the difference in length in terms of a standard-length unit. 2.GR.A.4

B REASON WITH SHAPES AND THEIR ATTRIBUTES. 2.GR.B

5. Identify and draw shapes (triangles, quadrilaterals, pentagons, hexagons, and cubes) having specific attributes, such as a given number of angles or a given number of equal faces. 2.GR.B.5
6. Explain that a line of symmetry for a two-dimensional figure is a line across the figure such that the figure can be folded along the line into matching parts. Identify linesymmetric figures and draw lines of symmetry. 2.GR.B.6

C WORK WITH TIME AND MONEY. 2.GR.C

7. Tell and represent time to the nearest minute using multiple representations (e.g., digital clocks, analog clocks, number lines). 2.GR.C.7
8. Estimate and calculate elapsed time to the hour and half hour (e.g. If the school day begins at 8am and ends at 3 pm, the school day lasts 7 hours). 2.GR.C.8
9. Count mixed sets of coins and bills to solve problems in context (within $20.00) involving bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately. 2.GR.C.9

Reasoning with Data and Statistics DS

A REPRESENT AND INTERPRET DATA. 2.DS.A

1. Ask and answer questions by collecting, organizing and summarizing data. 2.DS.A.1
   - a Craft a question that can be answered by collecting categorical and numerical data. 2.DS.A.1.A
   - b Collect and organize data using surveys, making observations, or measuring. 2.DS.A.1.B
   - c Represent categorical data using picture graphs and bar graphs. Represent numerical data using line plots. 2.DS.A.1.C
   - d Summarize the data presented in data visualizations using “most,” “least,” “greater than,” “less than,” and “equal to” and determine what questions can be answered with a given data set. 2.DS.A.1.D