

2023-24 Math Curriculum Map 2nd & 3rd Grade

August 14-18

2.OA.B.2: Fluently add and subtract within 20. By the end of Grade 2, know from memory all sums of two one-digit numbers.

3.OA.A.1: Interpret products of whole numbers as the total number of objects in equal groups (e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each).

August 21-25

2.NBT.B.5: Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

3.OA.A.2: Interpret whole number quotients of whole numbers (e.g., interpret $56 \div 8$ as the number of objects in each group when 56 objects are partitioned equally into 8 groups, or as a number of groups when 56 objects are partitioned into equal groups of 8 objects each).

August 28 - September 1

2.OA.A.1: Use addition and subtraction within 100 to solve one and two-step word problems. Represent a word problem as an equation with a symbol for the unknown.

3.OA.A.4: Determine the unknown whole number in a multiplication or division equation relating three whole numbers *For example, determine the unknown number that makes the equation true in each of the equations $8 \times = 48$, $5 = \div 3$, $6 \times 6 =$.*

September 5-8

2.MD.A.1: Measure the length of an object by selecting and using appropriate tools (e.g., ruler, meter stick, yardstick, measuring tape).

3.OA.B.6: Understand division as an unknown-factor problem (e.g., find $32 \div 8$ by finding the number that makes 32 when multiplied by 8).

September 11-15

2.MD.A.3: Estimate lengths using units of inches, feet, centimeters, and meters.

3.OA.B.5: Apply properties of operations as strategies to multiply and divide. Properties include commutative and associative properties of multiplication and the distributive property. (Students do not need to use the formal terms for these properties.)

September 18-22

2.MD.A.2: Measure the length of an object twice, using different standard length units for the two measurements; describe how the two measurements relate to the size of the unit chosen. Understand that depending on the size of the unit, the number of units for the same length varies.

3.OA.A.3: Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities.

September 25-29

2.MD.A.4: Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.

3.OA.C.7: Fluently multiply and divide within 100. By the end of Grade 3, know from memory all multiplication products through 10×10 and division quotients when both the quotient and divisor are less than or equal to 10.

October 2-6

2.MD.B.5: Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same unit.

3.OA.D.8: Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Utilize understanding of the Order of Operations when there are no parentheses.

October 9-11

2.MD.B.6: Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.

3.NBT.A.2: Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

October 16-20

2.NBT.A.1: Understand that the three digits of a three-digit number represent groups of hundreds, tens, and ones (e.g., 706 equals 7 hundreds, 0 tens, and 6 ones and also equals 70 tens and 6 ones).

Understand the following as special cases:

- a. 100 can be thought of as a group of ten tens—called a “hundred.”
- b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).

3.MD.A.1a: Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes (e.g., representing the problem on a number line diagram).

October 23-27

2.NBT.A.2: Count within 1000; skip count by 5's, 10's and 100's.

3.MD.A.2: Measure and estimate liquid volumes and masses of objects using metric units. (Excludes compound units such as cm^3 and finding the geometric volume of a container.) Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units. Excludes multiplicative comparison problems (problems involving notions of “times as much”).

October 30- November 3

2.NBT.A.3: Read and write numbers up to 1000 using base-ten numerals, number names, and expanded form.

3.NBT.A.1: Use place value understanding to round whole numbers to the nearest 10 or 100.

November 6-9

2.NBT.A.4: Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons.

3.OA.D.9: Identify patterns in the addition table and the multiplication table and explain them using properties of operations (e.g. observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends).

November 13-17

2.NBT.B.8: Mentally add 10 or 100 to a given number in the range of 100 and 900, and mentally subtract 10 or 100 from a given number in the range of 100 and 900.

3.NBT.A.3: Multiply one-digit whole numbers by multiples of 10 in the range 10 to 90 using strategies based on place value and the properties of operations (e.g., 9×80 , 5×60).

November 20-21 (Thanksgiving)

Review

November 27 - December 1

2.NBT.B.9: Explain why addition and subtraction strategies work, using place value and the properties of operations. (Explanations may be supported by drawings or objects.)

3.OA.D.10: When solving problems, assess the reasonableness of answers using mental computation and estimation strategies including rounding.

December 4-8

3.MD.A.1b: Solve word problems involving money through \$20.00, using symbols \$, ".", and ¢.

December 11-15

2.NBT.B.7: Demonstrate understanding of addition and subtraction within 1000, connecting objects or drawings to strategies based on place value (including multiples of 10), properties of operations, and/or the relationship between addition and subtraction. Relate the strategy to a written form.

3.MD.C.5: Understand area as an attribute of plane figures and understand concepts of area measurement.

- a. A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area.
- b. A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units.

December 18-21

2.NBT.B.6: Add up to three two-digit numbers using strategies based on place value and properties of operations.

3.MD.C.6: Measure areas by counting unit squares (e.g., square cm, square m, square in, square ft, and improvised units).

January 8-12

3.MD.C.7: Relate area to the operations of multiplication and addition.

- a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.

- b. Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real-world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.

- c. Use tiling to show that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning.

January 16-19

2.OA.C.4: Use addition to find the total number of objects arranged in rectangular arrays (with up to 5 rows and 5 columns). Write an equation to express the total as a sum of equal addends.

3.MD.C.7: Relate area to the operations of multiplication and addition.

d. Understand that rectilinear figures can be decomposed into non-overlapping rectangles and that the sum of the areas of these rectangles is identical to the area of the original rectilinear figure. Apply this technique to solve problems in real-world contexts.

January 22-26

2.G.A.2: Partition a rectangle into rows and columns of same-size rectangles and count to find the total number of rectangles

3.G.A.2: Partition shapes into b parts with equal areas. Express the area of each part as a unit fraction $1/b$ of the whole. (Grade 3 expectations are limited to fractions with denominators $b = 2,3,4,6,8$.)

January 29 - February 2

3.NF.A.1: Understand a fraction $(1/b)$ as the quantity formed by one part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size $1/b$.

2.OA.C.3: Determine whether a group of objects (up to 20) has an odd or even number of members (e.g., by pairing objects or counting them by 2's).

February 5-9

2.MD.D.10: Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in the graph.

3.NF.A.3: Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.

- a. Understand two fractions as equivalent if they have the same relative size compared to 1 whole.

- b. Recognize and generate simple equivalent fractions. Explain why the fractions are equivalent.

- c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers.

February 12-16

3.NF.A.3: Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.

- d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Understand that comparisons are valid only when the two fractions refer to the same whole. Record results of comparisons with the symbols $>$, $=$, or $<$, and justify conclusions.

February 19-21 (Short Week)

2.MD.D.9: Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.

3.NF.A.2: Understand a fraction as a number on the number line; represent fractions on a number line diagram.

a. Represent a fraction $\frac{1}{b}$ on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Understand that each part has size $\frac{1}{b}$ and that the end point of the part based at 0 locates the number $\frac{1}{b}$ on the number line.

b. Represent a fraction $\frac{a}{b}$ on a number line diagram by marking off a lengths $\frac{1}{b}$ from 0. Understand that the resulting interval has size $\frac{a}{b}$ and that its endpoint locates the number $\frac{a}{b}$ on the number line including values greater than 1.

c. Understand a fraction $\frac{1}{b}$ as a special type of fraction that can be referred to as a unit fraction (e.g. $\frac{1}{2}$, $\frac{1}{4}$).

February 26 – March 1

2.G.A.1: Identify and describe specified attributes of two-dimensional and three-dimensional shapes, according to the number and shape of faces, number of angles, and the number of sides and/or vertices. Draw two-dimensional shapes based on the specified attributes (e.g., triangles, quadrilaterals, pentagons, and hexagons).

3.MD.B.3: Create a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problem using information presented in scaled bar graphs

March 4-8

2.G.A.3: Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, fourths, half of, third of, fourth of, and describe the whole as two halves, three thirds, or four fourths. Recognize that equal shares of identical wholes need not have the same shape.

3.MD.B.4: Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch to the nearest quarter-inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters.

March 18-22

2.MD.C.7: Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.

3.G.A.1: Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples quadrilaterals that do not belong to any of these subcategories.

March 25-28

2.MD.C.8: *Solve word problems involving collections of money, including dollar bills, quarters, dimes, nickels, and pennies. Record the total using \$ and ¢ appropriately. See Table 1.*

3.MD.C.8: Solve real-world and mathematical problems involving perimeters of plane figures and areas of rectangles, including finding the perimeter given the side lengths, finding an unknown side length. Represent rectangles with the same perimeter and different areas or with the same area and different perimeters.

April & May Review