

Wells Elementary School

Grade 3 Curriculum

MATH

Grade Level: 3

UNIT/MODULE: 1 - Properties of Multiplication and Division and Solving Problems with Units of 2 - 5 and 10

Focus Skills/Strategies:

- A. Multiplication and the Meaning of Factors
- B. Division as an Unknown Factor Problem
- C. Multiplication Using Units of 2 and 3
- D. Division Using Units of 2 and 3
- E. Multiplication and Division Using Units of 4
- F. Distributive Property and Problem Solving Using Units of 2 - 5 and 10

Standards	LEARNING TARGETS ("I CAN" STATEMENTS)
<u>3.OA.1</u>	I can interpret products of whole numbers as X many groups of X many objects in each.
<u>3.OA.2</u>	I can interpret quotients of whole numbers as the number of objects in each group when the objects are partitioned equally.
<u>3.OA.3</u>	I can decide when to use multiplication in word problems within 100. I can solve multiplication word problems involving equal groups, arrays, and measurement quantities by using drawings and equations with a symbol for the unknown number.
<u>3.OA.4</u>	I can find the unknown whole number in any part of a multiplication equation. I can find the unknown whole number in any part of a division equation.
<u>3.OA.5</u>	I can show that changing the order of the factors in a multiplication problem does not affect the product. I can show that changing the grouping of three or more factors in a multiplication problem does not affect the product. I can show that multiplying a sum by a number is the same as multiplying each of its addends by the number and then adding the products.
<u>3.OA.6</u>	I can use multiplication fact families to find the unknown number in a division problem.
<u>3.OA.7</u>	I can fluently multiply within 100 using a variety of strategies. I can recall products of two one digit numbers from memory. I can fluently divide within 100 using a variety of strategies.
<u>3.OA.8</u>	I can use +, -, x, / to solve two step word problems. I can use a letter to stand for the unknown number in the equations. I can use mental math and estimation strategies to decide if the answer is reasonable.

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UNIT/MODULE: 2 - Place Value and Problem Solving with Units of Measure

Focus Skills/Strategies:

- A. Time Measurement and Problem Solving
- B. Measuring Weight and Liquid Volume in Metric Units
- C. Rounding to the Nearest Ten and Hundred
- D. Two and Three Digit Measurement Addition Using the Standard Algorithm
- E. Two and Three Digit Measurement Subtraction Using the Standard Algorithm

Standards	LEARNING TARGETS (“I CAN” STATEMENTS)
3.NBT.1	I can define rounding in relation to place value. I can round a whole number to the nearest 10. I can round a whole number to the nearest 100.
3.NBT.2	I know strategies and algorithms for adding and subtracting within 1000. I can fluently add and subtract within 1000.
3.MD.1	I can recognize minute marks on an analog and digital clock. I can write time to the nearest minute. I can tell time to the nearest minute. I can compare an analog clock with a number line. I can use a number line to add and subtract time intervals in minutes. I can solve word problems involving addition and subtraction of time intervals in minutes.
3.MD.2	I can explain how to measure liquid volume in liters. I can explain how to measure mass in grams and kilograms. I can add, subtract, multiply, and divide units of liters, grams, and kilograms. I can use various strategies to represent a word problem involving liquid volume or mass. I can solve one step word problems involving masses given in the same unit. I can measure liquid volumes using standard units of liters. I can measure mass of objects using standard units of grams and kilograms.

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UNIT/MODULE: 3 - Multiplication and Division with Units of 0, 1, 6-9, and Multiples of 10

Focus Skills/Strategies:

- A. The Properties of Multiplication and Division
- B. Multiplication and Division using Units of 6 and 7
- C. Multiplication and Division Using Units up to 8
- D. Multiplication and Division Using Units of 9
- E. Analysis of Patterns and Problem Solving Including Units of 0 and 1
- F. Multiplication of Single-Digit Factors and Multiples of 10

Standards	LEARNING TARGETS (“I CAN” STATEMENTS)
<u>3.OA.3</u>	I can decide when to use multiplication in word problems within 100. I can solve multiplication word problems involving equal groups, arrays, and measurement quantities by using drawings and equations with a symbol for the unknown number.
<u>3.OA.4</u>	I can find the unknown whole number in any part of a multiplication equation. I can find the unknown whole number in any part of a division equation.
<u>3.OA.5</u>	I can show that changing the order of the factors in a multiplication problem does not affect the product. I can show that changing the grouping of three or more factors in a multiplication problem does not affect the product. I can show that multiplying a sum by a number is the same as multiplying each of its addends by the number and then adding the products.
<u>3.OA.6</u>	I can solve for the answer to a division equation by thinking of the missing factor in a multiplication equation.
<u>3.OA.7</u>	I can fluently multiply within 100 using a variety of strategies. I can recall products of two one digit numbers from memory. I can fluently divide within 100 using a variety of strategies.
<u>3.OA.8</u>	I can use +, , x, / to solve two step word problems. I can use a letter to stand for the unknown number in the equations. I can use mental math and estimation strategies to decide if the answer is reasonable.
<u>3.OA.9</u>	I can find patterns in addition and multiplication tables.
<u>3.NBT.3</u>	I can multiply any one-digit number by ten and multiples of 10.

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UNIT/MODULE: 4 - Multiplication and Area

Focus Skills/Strategies:

- A. Foundations for Understanding Area
- B. Concepts of Area Measurement
- C. Arithmetic Properties Using Area Models
- D. Applications of Area Using Side Lengths of Figures

Standards	LEARNING TARGETS (“I CAN” STATEMENTS)
<u>3.MD.5</u>	• I can define area as the measure of space within a plane figure. • I can understand that unit squares can be used to measure the area of plane figures. • I can understand that a plan figure covered without gaps or overlaps by a certain number of • unit squares has an area that is equal to the number of unit squares used to cover it.
<u>3.MD.6</u>	• I can count unit squares to measure area. • I can record the area in square cm, m, in, ft, and other units.
<u>3.MD.7</u>	• I can use multiplication and addition to find the area. • I can 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. • I can divide a rectangle into equal size squares and count the squares to find the area. • I can divide a rectangle into equal size squares and multiply the number of squares across the long side by the number of squares across the short side to find the area. • I can solve real world problems by multiplying a rectangle’s lengths to find the area. • I can divide a rectangle into equal sized squares to show that the area of the rectangle with side lengths a and $b+c$ is the sum of $a \times b$ and $a \times c$. • I can represent the distributive property using area models. • I can find the area of a polygon that is made of two rectangles. • I can divide a polygon into two rectangles along the shared side. • I can add the areas of the two rectangles to find the area of the entire polygon.

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UNIT/MODULE: 5 - Fractions as Numbers on the Number Line

Focus Skills/Strategies:

- A. Partition a Whole into Equal Parts
- B. Unit Fractions and Their Relation to the Whole
- C. Comparing Unit Fractions and Specifying the Whole
- D. Fractions on the Number Line
- E. Equivalent Fractions
- F. Comparison, Order, and Size of Fractions

Standards	LEARNING TARGETS (“I CAN” STATEMENTS)
3.NF.1	I can recognize a unit fraction such as $\frac{1}{4}$ as the quantity formed when the whole is partitioned into 4 equal parts. I can identify a fraction such as $\frac{2}{3}$ and explain that the quantity formed is 2 equal parts of the whole partitioned into 3 equal parts ($\frac{2}{3}$ and $\frac{1}{3}$ of the $\frac{3}{3}$). I can express a fraction as the number of unit fractions. I can use accumulated unit fractions to represent numbers equal to, less than and greater than one ($\frac{1}{3}$, and $\frac{1}{3}$, is $\frac{2}{3}$, $\frac{1}{3}$, $\frac{1}{3}$, $\frac{1}{3}$, and $\frac{1}{3}$ and $\frac{4}{3}$
3.NF.2	I can define the interval from 0 to 1 on a number line as the whole. I can divide a whole on a number line into equal parts. I can recognize that the equal parts between 0 and 1 have a fractional representation. I can represent each equal part on a number line with a fraction. I can explain that the endpoint of each equal part is represented by a fraction ($\frac{1}{\text{the number of equal parts}}$).
3.NF.3	I can recognize the whole numbers written in fractional parts on a number line. I can recognize the difference between a whole number and a fraction. I can explain how a fraction is equivalent to a whole number.
3.G.2	I know that shapes can be partitioned into equal areas. I can describe the area of each part as a fractional part of the whole. I can relate fractions to geometry by expressing the area of part of a shape as a unit fraction of the whole.

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UNIT/MODULE: 6 - Collecting and Displaying Data

Focus Skills/Strategies:

- A. Generate and Analyze Categorical Data
- B. Generate and Analyze Measurement Data

Standards	LEARNING TARGETS (“I CAN” STATEMENTS)
3.MD.3	I can <i>explain</i> the scale of a graph with a scale greater than one. I can <i>identify</i> the scale of a graph with a scale greater than one. I can analyze a graph with a scale greater than one. I can choose a proper scale for a bar or picture graph. I can interpret a bar or picture graph to solve one or two step problems asking “how many more” and “how many less”. I can create a scaled <i>picture</i> graph to show data. I can create a scaled <i>bar</i> graph to show data.
3.MD.4	I can define the horizontal axis. I can identify each plot on the line graph as data or a number of objects. I can analyze data from a line plot graph. I can determine the appropriate unit of measurement. I can determine the appropriate scale for a line plot graph. I can use a ruler to measure lengths in halves and fourths. I can create a line plot graph where the horizontal scale is marked off in appropriate units; whole numbers, halves, or quarters.

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UNIT/MODULE: 7 - Geometry and Measurement Word Problems

Focus Skills/Strategies:

- A. Solving Word Problems
- B. Attributes of two-dimensional Figures
- C. Problem Solving with Perimeter
- D. Recording Perimeter and Area Data on Line Plots
- E. Problem Solving with Perimeter and Area

Standards	LEARNING TARGETS (“I CAN” STATEMENTS)
<u>3.OA.8</u>	I can use +, , x, / to solve two step word problems. I can use a letter to stand for the unknown number in the equations. I can use mental math and estimation strategies to decide if the answer is reasonable.
<u>3.MD.4</u>	I can generate and record measurement data using wholes, halves, and quarters of an inch. I can create a line plot with a horizontal scale marked off in whole, half, and quarter units to represent a set of measurement data.
<u>3.MD.8</u>	I can solve realworld problems involving perimeters of polygons. I can find the perimeter of a polygon given the side lengths. I can find an unknown side length. I can create rectangles with the same perimeter and different areas. I can create rectangles with the same area and different perimeters.
<u>3.G.1</u>	I can understand that shapes in different categories may share attributes. I can understand that the shared attributes can define a larger category of shapes. I can recognize that rhombuses, rectangles, and squares are examples of quadrilaterals. I can draw quadrilaterals that are not squares, rectangles, or rhombuses.