

Fifth Grade Math Syllabus

The **First Nine Weeks** focuses on understanding and calculating volume, performing multi-digit multiplication and division with whole numbers, and exploring place value concepts with decimals. It also covers reading, writing, comparing, and rounding decimal numbers, as well as adding and subtracting decimals.

Unit	Lesson	Title	Learning Objective	Vocabulary
1	1	Understand Volume	I can understand and find the volume of a unit cube.	cubic unit, plane figure, solid figure, unit cube, unit square, volume, area, face, rectangular prism, square unit, overlap
1	2	Find Volume Using Unit Cubes	I can determine the volume of a rectangular prism by counting cubes that may be cubic centimeters, cubic inches, cubic feet, or improvised units.	cubic unit, face, rectangular prism, unit cube, volume, layer
1	3	Finding Volumes Using Formulas	I can explain the different formulas $V=l \times w \times h$ and $V = b \times h$. I can find the additive volume of a composite figure.	base (of a prism), area, cubic unit, dimensions, formula, volume, diagram, reasoning, relate
1	4	Multiply Whole Numbers	I can complete the standard algorithm fluently to multiply multi-digit numbers.	distributive property, algorithm, factor, partial products, products, reasonableness, sketch, standard

1	5	Divide Whole Numbers	I can divide a whole number dividend with up to four digits by a two-digit divisor using any appropriate strategy.	inverse operations, dividend, division, divisor, partial quotients, quotient, reasonable, relate, result
2	6	Understand Place Value	I can explain the patterns of the Base Ten System (each position is 10 times the position to its right and 1/10 of the position to its left).	base ten, thousandths, decimal, place value, position, relate, represent
2	7	Understand Powers of 10	I can explain how the patterns of the powers of ten relate to numbers being multiplied by them and divided by them.	base (of a power), exponent, power of 10, decimal, determine, justify, placement
2	8	Read and Write Decimals	I can read and write decimals to thousandths using base-ten numerals, number names, and expanded form.	expanded form, decimal, hundredths, mixed number, tenths, thousandths, relationship
2	9	Compare and Round Numbers	I can compare the decimal amount in various forms and with varying decimal place values. I can round a decimal number to any given place using place value understanding.	inequality, compare, greater than symbol (>), less than symbol (<), place value, approximate, relationship

2	10	Add Decimals	I can use visual models to illustrate adding decimal numbers.	decimal, estimate (verb), place value, sum, partially completed, vertically
2	11	Subtract Decimals	I can use visual models to illustrate subtracting decimal numbers.	decimal, difference, complete, vertically

Second Nine Weeks begins with fraction operations, including addition and subtraction of fractions and mixed numbers, and multiplication of fractions by fractions and fractions by whole numbers. Students also learn to interpret fractions as division and solve word problems involving decimals and fractions. Later in the unit, operations with decimals continue to include multiplication and division. It concludes with the concept of multiplication as scaling.

Unit	Lesson	Title	Learning Objective	Vocabulary
2	12	Add Fractions	I can find a common denominator and create equivalent fractions for given fractions or mixed numbers and perform addition.	common denominator, denominator, equivalent fractions, mixed number, multiple, numerator, previous, unlike
2	13	Subtract Fractions	I can find a common denominator and create equivalent fractions for given fractions or mixed numbers and perform subtracting.	common denominator, denominator, equivalent fractions, numerator, set, unlike
2	14	Add and Subtract in Word Problems	I can solve word problems involving addition and	benchmark fraction, common denominator, equivalent fractions, actual, reasonable

			subtraction with decimals and fractions.	
3	15	Multiply a Decimal by a Whole Number	I can use visual models to illustrate multiplying numbers.	decimal, estimate (verb), factor, partial products, place value, product, row
3	16	Multiply Decimals	I can use visual models to illustrate multiplying decimal numbers.	decimal, estimate (verb), factor, place value, product, column, represent, row
3	17	Divide Decimals	I can use visual models to illustrate dividing decimal numbers.	dividend, divisor, estimate (verb), quotient, method, section, suppose
3	18	Fractions as Division	I can interpret a fraction as a division of the numerator by the denominator	denominator, fraction, numerator, quotient, remainder, section, suppose
3	19	Understand Multiplication by a Fraction	I can find the area of a rectangle with fractional side lengths using unit squares of the appropriate unit fraction side lengths.	denominator, factor, numerator, product, unit fraction, overlap, represent, section
3	20	Multiply Fractions to Find Area	I can find the area of a rectangle with fractional side lengths using unit squares of the appropriate unit fraction side lengths.	area, factor, product, unit fraction, overlap, tile (noun), tile (verb)

3	21	Understand Multiplication as Scaling	I can use patterns to reason/justify the size of the product when multiplying a whole number by a fraction.	unit fraction, explanation, original
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Third Nine Weeks covers division with unit fractions and solving related word problems. The unit then shifts to measurement conversions within systems, solving problems involving conversions, and creating and interpreting line plots. It continues with classifying two-dimensional figures and understanding their hierarchies, and concludes with using the order of operations to evaluate expressions.

Unit	Lesson	Title	Learning Objective	Vocabulary
3	22	Multiply Fractions in Word Problems	I can solve real-world multiplication problems involving fractions and mixed numbers by creating a visual model or equation to solve.	equation, factor, mixed number, product, confidence, reasoning
3	23	Understand Division with Unit Fractions	I can divide unit fractions by whole numbers. I can divide whole numbers by unit fractions.	unit fraction, statement
3	24	Divide Unit Fractions in Word Problems	I can solve real-world problems involving the division of unit fractions by non-zero whole numbers and the division of whole numbers by unit fractions.	unit fraction, explanation, original

4	25	Convert Measurement Units	I can use knowledge of whole numbers, fractions, decimals to compare/convert units of measurement within a system.	customary system, metric system, conversion
4	26	Solve Word Problems Involving Conversions	I can solve multiple-step, real-world problems using various units of measurement (within the same system).	customary system, metric system, conversion, convert, method
4	27	Make Line Plots and Interpret Data	I can make a line plot to show measurements in fractions of a unit	scale (on a graph), line plot, display, label (noun) label (verb)
4	28	Understand Categories of Two-Dimensional Figures	I can sort polygons, especially quadrilaterals, into different subcategories by explaining the criterion by which they used to sort the polygons.	category, hierarchy, subcategory, tree diagram, Venn diagram, attribute, general, region, specific
4	29	Classify Two-Dimensional Figures	I can create a hierarchy of polygons, such as quadrilaterals, sorted with those with the most attributes and narrowing down to those with the fewest attributes.	trapezoid (exclusive), trapezoid (inclusive), attribute, hierarchy, tree diagram, Venn diagram, classify, property, support
5	30	Evaluate, Write, and Interpret Expressions	I can evaluate numerical expressions with	evaluate, grouping symbols, expression, following numerical

			parentheses, brackets, or braces.	
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The **Fourth Nine Weeks** focuses on the different parts of Quadrant I in the coordinate plane. It continues with locating and graphing points by using ordered pairs and directions. It concludes with using the coordinate plane to represent real-world problems and identifying patterns and relationships between ordered pairs.

5	31	Understand the Coordinate Plane	I can identify the different parts of the coordinate grid.	coordinate plane, ordered pair, x-axis, x-coordinate, y-axis, y-coordinate, horizontal, plot, vertical
5	32	Represent Problems in the Coordinate Plane	I can locate points (coordinates) and follow directions on a coordinate grid that has been contextualized using a real-world example.	coordinate plane, ordered pair, x-axis, x-coordinate, y-axis, y-coordinate, determine, locate, situation
5	33	Analyze Patterns and Relationships	I can create Quadrant I using an x-axis and y-axis and graph points within Quadrant I that relate to real-world data.	corresponding terms, terms, pattern, generate, numerical, position