

Fourth Grade Math Syllabus

The **First Nine Weeks** focuses on place value, comparing and rounding whole numbers, and addition and subtraction of multi-digit numbers. It then moves to understanding multiplication as a comparison, solving word problems with multiplicative comparisons, exploring factors and multiples, and generating number and shape patterns. It concludes with solving multi-step word problems and multiplication of multi-digit numbers.

Unit	Lesson	Title	Learning Objective	Vocabulary
1	1	Understand Place Value	I can read and write numbers in different forms.	period, standard form, word form, digit, expanded form, place value, represent
1	2	Compare Whole Numbers	I can compare multi-digit whole numbers using greater than, less than, or equal inequality symbols.	compare, equal sign, greater than symbol $>$, less than symbol $<$, position
1	3	Round Whole Numbers	I can use place value to help me round multi-digit whole numbers to any place.	estimate, round, justify
1	4	Add Whole Numbers	I can fluently add multi-digit whole numbers using the standard algorithm.	reasonable, regroup, addend, algorithm, estimate, round, sum, digit

1	5	Subtract Whole Numbers	I can fluently subtract multi-digit whole numbers using the standard algorithm.	reasonable, regroup, addend, algorithm, estimate, round, sum, difference, clarify, compare
2	6	Understand Multiplication as a Comparison	I can interpret a multiplication equation as a comparison.	multiplicative comparison, equation, factor, multiplication, multiply, confirm
2	7	Multiplication and Division in Word Problems	I can multiply or divide to solve word problems involving multiplicative comparison.	symbol, unknown, divide, division, equation, factor, multiplication, multiplicative comparison, multiply, clarify
2	8	Multiples and Factors	I can find all factor pairs for a whole number in the range of 1-100.	composite number, factor pair, factors of a number, multiple, prime number, array, factor, multiplication, multiply, repeat
2	9	Numbers and Shape Patterns	I can generate a number or shape pattern that follows a given rule.	rule, pattern, alternate, repeat
2	10	Model and Solve Multi-Step Problems	I can solve multi-step word problems posed with whole numbers.	expression, remainder, divide, equation, estimate, multiply, reasonable, unknown, opinion

3	11	Multiply by One-Digit Numbers	I can multiply a whole number of up to four digits by a one digit whole number.	partial product, estimate (noun, verb) factor, factors of a number, multiple, multiplication, multiply, product, partial product, reasonable
3	12	Multiply by Two-Digit Numbers	I can multiply two two-digit numbers using strategies based on place value and properties of operations.	partial product, estimate (noun, verb) factor, factors of a number, multiple, multiplication, multiply, product, reasonableness, row

Second Nine Weeks continues with converting measurements and dividing multi-digit numbers. It then transitions to understanding real-world applications of area and perimeter. The unit progresses with an emphasis on fractions, including creating equivalent fractions, comparing fractions, and decomposing fractions. The unit ends with the addition and subtraction of fractions.

Unit	Lesson	Title	Learning Objective	Vocabulary
3	13	Use Multiplication to Convert Measurements	I can know the relative sizes of measurement units within one system of units.	convert, customary system, metric system, label, process
3	14	Divide Three-Digit Numbers	I can find whole number quotients and remainders with up to four-digit dividends and one-digit divisors.	dividend, divisor, divide, division, estimate (noun, verb), multiple, quotient, remainder, process, reasonable, remail

3	15	Divide Four-Digit Numbers	I can find whole number quotients and remainders with up to four-digit dividends and one-digit divisors.	partial quotients, divide, dividend, division, divisor, quotient, remainder, partial
3	16	Find Perimeter and Area	I can apply the area and perimeter formulas for rectangles in real-world and mathematical problems.	formula, area, perimeter, label
4	17	Understand Equivalent Fractions	I can plot, label, and identify fractions on a number line and a variety of fraction models.	denominator, equivalent fractions, fraction, numerator, unit fraction, model, model, shade
4	18	Compare Fractions	I can make comparisons of fractions using a variety of visual models.	benchmark fraction, common denominator, compare, denominator, greater than symbol $>$, less than symbol $<$, numerator, connection
4	19	Understand Fraction Addition and Subtraction	I can understand addition and subtraction of fractions by joining and separating parts referring to the same whole.	denominator, fraction, numerator, unit fraction, compare

4	20	Add and Subtract Fractions	I can decompose a fraction into a sum of fractions with the same denominator in more than one way.	decompose, denominator, fraction, numerator, unit fraction, altogether, rest
---	----	----------------------------	--	--

Third Nine Weeks begins with fraction operations, including the addition and subtraction of mixed numbers, multiplication of fractions by whole numbers and relating fractions to decimals. It then covers measurement word problems involving time, money, and various units. The unit concludes with geometry concepts, including types of angles, attributes of two-dimensional figures, and symmetry.

Unit	Lesson	Title	Learning Objective	Vocabulary
4	21	Add and Subtract Mixed Numbers	I can add and subtract mixed numbers with like denominators.	decompose, mixed number, farther
4	22	Add and Subtract Fractions in Line Plots	I can make a line plot to display a data set of measurement in fractions of a unit.	data, fraction, line plot, mixed number, discuss, occur
4	23	Understand Fraction Multiplication	I can understand a fraction a/b as a multiple of $1/b$.	denominator, fraction, multiplication, multiply, numerator, product, construct
4	24	Multiply Fractions by Whole Numbers	I can solve word problems involving the multiplication of a fraction by a whole number.	denominator, fraction, multiply, numerator, product, batch

4	25	Fractions as Tenths and Hundredths	I can express a fraction with denominator 10 as an equivalent fraction with denominator 100.	hundredths, tenths, denominator, equivalent fractions, fraction, numerator, confidence
4	26	Relate Decimals and Fractions	I can use decimal notation for fractions with denominators 10 or 100.	decimal, decimal point, denominator, equivalent fractions, fraction, numerator, shade
4	27	Compare Decimals	I can compare two decimals to hundredths by reasoning about their size.	compare, decimal, equal, equal sign =, greater than symbol >, less than symbol <, location
4	28	Problems About Time and Money	I can use the four operations to solve word problems involving time and money.	convert, equation, expression, counterexample
4	29	Problems About Length, Liquid Volume, Mass and Weight	I can use the four operations to solve word problems involving distances, liquid volumes, and masses of objects.	weight, convert, equation, expression, length, liquid volume, mass, given

5	30	Points, Lines, Rays, and Angles	I can recognize angles as geometric shapes and understand concepts of angle measurement.	acute angle, angle, line, line segment, obtuse angle, parallel lines, point, ray, right angle, vertex, assumption, characteristic
---	----	---------------------------------	--	---

Fourth Nine Weeks begins with angle measurement, including the concept of using known angle measures to solve for unknown angles. It continues with the classification of two-dimensional figures and concludes with recognizing lines of symmetry in these figures.

5	31	Angles	I can measure angles in whole-number degrees using a protractor.	degree, protractor, acute angle, angle, obtuse angle, ray, right angle, vertex, exactly, line up, section
5	32	Add and Subtract with Angles	I can recognize angle measure as additive and solve problems to find unknown angles.	angle, compose, decompose, degree, protractor, relationship
5	33	Classify Two-Dimensional Figures	I can classify two-dimensional figures based on their properties.	acute triangle, equilateral triangle, hexagon, isosceles triangle, obtuse triangle, polygon, right triangle, scalene triangle, trapezoid, parallel lines, parallelogram, perpendicular lines, at least, in common
5	34	Symmetry	I can recognize a line of symmetry for a two-dimensional figure.	line of symmetry, at least, exactly