

	Name of Course: iReady Curriculum Team Members: Grade 4	
Unit	1: Whole Numbers: Place Value, Comparison, Addition and Subtraction	
Essential Questions	What does place value mean? How does place value help me to compare numbers? What is the standard algorithm for addition? What is the standard algorithm for subtraction?	
Content Standards	4.NBT.A.1, 4.NBT.A.2, 4.NBT.A.3, 4.NBT.B.4	
Concepts and Subskills	Students will understand: - Place value knowledge can be used to read, write and compare multi-digit numbers - Each place in a number is ten times greater than the place to its right and that can help determine the value of the numbers. - Place value knowledge can help you round, add and subtract numbers.	Students will be skilled at: - Reading and writing numbers in different forms (i.e. standard, expanded) - Comparing two multi-digit whole numbers - Rounding multi-digit whole numbers - Adding multi-digit whole numbers - Subtracting multi-digit whole numbers
Content Objectives (Student Friendly Language)	Lesson 1: - Use a place-value chart to understand the value of each digit in a number. - Identify the value of a digit based on its position in a number. - Demonstrate how moving from one place to the next greatest place changes the value of a digit by a multiple of ten. - Show that any number can be represented in different ways. - Use standard form, word form and expanded form to read and write multi-digit whole numbers. Lesson 2: - Use symbols ($>$, $<$, $=$) to show the relationship between two multi-digit numbers. - Compare multi-digit numbers in order to solve word problems. Lesson 3: - Round multi-digit whole numbers to any place - Explain how to round a multi-digit whole number to a specific place. Lesson 4: - Use place-value strategies to add two or more multi-digit whole numbers. - Develop fluency with the standard algorithm for addition when adding multi-digit whole numbers up to 999,999 - Use an estimating strategy with rounded numbers to check for reasonableness of a sum. Lesson 5:	

	• Use place-value strategies to subtract multi-digit whole numbers. • Develop fluency with the standard algorithm for subtraction when subtracting whole numbers up to 999,999. • Use addition to check the differences. • Use an estimating strategy with rounded numbers to check for reasonableness of a difference.
Content Vocabulary	Mathematical Vocabulary
	Period, standard form, word form, digit, expanded form, place value, compare, equal sign, greater than symbol, less than symbol, estimate, round, reasonable, regroup, addend, algorithm, sum, difference
	Academic Vocabulary
	Represent, position, justify, digit, clarify, compare
	Additional Vocabulary
Assessments, Products, Projects	Lesson quizzes and Unit assessments
Text, Materials, and Resources	Lesson slides and: Lesson 1: Lesson 2: base ten blocks, hundred thousands place-value charts, index cards, number lines Lesson 3: hundred thousands place-value charts, index cards, number lines Lesson 4: base-ten blocks, hundred thousands place-value charts, grid paper, number lines Lesson 5: base-ten blocks, hundred thousands place-value charts, grid paper, number lines

	Name of Course: iReady Curriculum Team Members: Grade 4
Unit	2: Operations: Multiplication, Division, and Algebraic Thinking

Essential Questions	How can multiplication be shown as a comparison? How can multiplication and division help me solve story problems? How can I find the factor pairs for a number? How can I describe a pattern with numbers and shapes? How can I represent and solve multi-step word problems?	
Content Standards	4.OA.A.1, 4.OA.A.2, 4.OA.B. 4, 4.OA.C.5, 4.OA.A.3	
Concepts and Subskills	Students will understand: • Multiplicative comparisons can be solved by multiplying or dividing • Basic multiplication facts helps find factors of a number • Rules can be applied to extend number or shape patterns	Students will be skilled at: • Multiplying and dividing to solve comparison problems • Identify factor pairs and multiples • Identifying prime or composite numbers • Describing rules in number and shape patterns • Modeling and solving multi-step word problems using equations
Content Objectives (Student Friendly Language)	Lesson 6: • Use a multiplication equation to represent the relationship between two numbers as a multiplicative comparison. • Identify a multiplication equation as showing two ways to describe a product as a comparison between two factors. • Write an equation to represent a multiplicative comparison word problem. • Write a word problem using a multiplicative comparison to describe a given multiplication equation. Lesson 7: • Use drawings and symbols to represent a word problem involving multiplicative comparison. • Use equations to solve for the unknown in multiplicative comparison problems. • Solve word problems involving multiplicative comparisons by using multiplication or division. • Distinguish between multiplicative comparison and additive comparison. Lesson 8: • Use basic multiplication facts to list all the factors of a number. • Use basic multiplication facts to determine whether a number is a multiple of another number. • Apply understanding of multiples and factors to solving problems. • Identify a number as prime or composite. Lesson 9: • Use rules to generate or extend a number pattern • Use manipulatives or drawings to show a shape pattern. • Describe, analyze and extend patterns in numbers and shapes. Lesson 10: • Use equations with a letter standing for the unknown to represent multi-step word problems and solve these equations. • Interpret the remainder in a division problem. • Use estimation strategies to check that an answer is reasonable.	

Content Vocabulary	Mathematical Vocabulary
	Multiplicative comparison, equation, factor, multiplication, multiply, symbol, unknown, divide, division, composite number, factor pair, factors of a number, multiple, prime number, array, pattern , rule, expression, remainder, reasonable, estimate
	Academic Vocabulary
	Confirm, repeat, alternate, opinion
	Additional Vocabulary
Assessments, Products, Projects	Lesson quizzes Unit assessment
Text, Materials, and Resources	Presentation slides and: Lesson 6: Lesson 7: counters and cups, number lines, multiplication models, grid paper, sticky notes Lesson 8: counters, index cards, multiplication models, index cards, sticky notes, grid paper, unit tiles, pennies Lesson 9: counters, hundred charts, index cards, number lines, unit tiles, pattern block templates, pattern blocks, rulers, sticky notes Lesson 10: base ten blocks, counters, cups, index cards, multiplication models, number lines, paper pales, play money

	Name of Course: iReady Curriculum Team Members: Grade 4
Unit	3: Multi-Digit Operations and Measurement
Essential Questions	How can place value help me multiply with multi-digit numbers? How can I figure out if my answer is reasonable? How can I convert measurements? How can place value and mathematical properties help me divide?

	What formulas help me solve problems about area and perimeter of rectangles?	
Content Standards	4.NBT.B.5, 4.MD.A.1, 4.NBT.B.6, 3.MD.A.3	
Concepts and Subskills	Students will understand: • Place value understanding can be used to multiply multi-digit numbers • Place value understanding can help you divide. • Units of measurement can be divided into small units. • Formulas can be used to find the area and perimeter of rectangles.	Students will be skilled at: • Multiplying a four-digit number by a one-digit number. • Multiplying a two-digit number by a two-digit number. • Using multiplication to convert measurements. • Dividing a three-digit number by a one-digit number. • Dividing a four-digit number by a one-digit number. • Using the perimeter and area formulas for rectangles.
Content Objectives (Student Friendly Language)	Lesson 11: • Multiply whole numbers of up to four digits by one-digit whole numbers. • Use arrays, area models, and partial products to multiply. • Use estimation to determine whether answers are reasonable. Lesson 12: • Multiply a two-digit number by a two-digit number. • Use area models and partial products to multiply. • Use estimation to determine whether an answer is reasonable. Lesson 13: • Identify relative sizes of measurements within one system. • Identify the units of measurements with a measurement system. • Convert measurements from a larger unit to a smaller unit within the same system. • Use a conversion table showing equivalent measurements within the same system. • Multiply whole numbers of up to four digits by one-digit whole numbers. • Multiply a two-digit number by a two-digit number. Lesson 14: • Divide up to three-digit dividends by one-digit divisors, with remainders. • Use rectangular arrays and area models to divide. • Use the relationship between multiplication and division to estimate and find a quotient. • Use place-value understanding and properties of operations to divide. Lesson 15: • Divide up to four-digit dividends by one-digit divisors, with remainders. • Use area models and partial quotients to divide. • Use the relationship between multiplication and division to estimate and find a quotient. • Use place-value understanding and properties of operations to divide. Lesson 16:	

	• Use the formula for perimeter of a rectangle to solve problems. • Use the formula for area of a rectangle to solve problems.
Content Vocabulary	Mathematical Vocabulary
	Parietal products, estimate, factor, factors of a number, multiple, multiplication, multiply, product, convert, customary system, metric system, dividend, divisor, divide division, quotient, remainder, partial quotients, formula, area, perimeter
	Academic Vocabulary
	Partial, reasonable, reasonableness, row, label, process, remain, label
	Additional Vocabulary
Assessments, Products, Projects	Lesson quizzes Unit assessments
Text, Materials, and Resources	Presentation slides and: Lesson 11: base-ten blocks, bowls, counters, grid paper, multiplication models, number lines, sticky notes Lesson 12: base-ten blocks, counters, cups, grid paper, multiplication models, paper plates Lesson 13: clock faces, clocks, index cards, math reference sheet, multiplication models, sticky notes, grid paper Lesson 14: base-ten blocks, bowls, counters, grid paper, multiplication models, paper plates Lesson 15: base-ten blocks, grid paper, multiplication models Lesson 16: grid paper, multiplication models, perimeter and area tool, rulers, math reference sheet

	Name of Course: iReady Curriculum Team Members: Grade 4
Unit	4: Fractions, Decimals, and Measurement: Addition, Subtraction, and Multiplication
Essential Questions	What is really going on when fractions are equivalent? How can I compare fractions? What is really going on when you add and subtract numbers?

	How can I add and subtract mixed numbers? How can I use line plot data to solve problems? What is really going on when you multiply numbers? How are tenths and hundredths related? How can I write fractions with denominators of 10 or 100 as decimals? How can I solve problems about time and money? How can I solve problems about length, liquid volume, mass and weight?	
Content Standards	4.NF.A.1, 4.NF.A.2, 4.NF.B.3, 4.NF.B.3, 4.MD.B.4, 4.NF.B.4, 4.NF.C.5, 4.NF.C.6, 4.NF.C.7, 4.MD.A.2	
Concepts and Subskills	Students will understand: - Fractions are numbers that work like whole fractions. - Whole number knowledge can help you show, build, and take apart fractions to solve problems. - Fraction knowledge helps to write and compare decimals.	Students will be skilled at: - Comparing fractions with unlike denominators. - Adding and subtracting fraction and mixed numbers. - Multiplying a fraction by a whole number. - Writing decimals as fractions and writing fraction as decimals - Comparing decimals. - Solving problems about measurement.
Content Objectives (Student Friendly Language)	Lesson 17: - Understand the value of a fraction. - Understand how a fraction model represents a fraction. - Use models to demonstrate that two fractions are equivalent. - Represent equivalent fractions using models. - Multiply and divide to find equivalent fractions. Lesson 18: - Use symbols ($>$, $<$, $=$) to compare fractions with different numerators and different denominators. - Recognize that fractions with different denominators and the same numerators represent different values. - Use common denominators and benchmark fractions to compare fractions with different denominators. - Recognize that to compare two fractions both must refer to the same whole. Lesson 19: - Understand fraction addition as joining parts. - Understand fraction subtraction as separating parts. - Extend understanding of addition and subtraction of whole numbers to addition and subtraction of fractions. - Use fraction models to add and subtract fractions with like denominators. Lesson 20: - Add fractions with like denominators. - Subtract fractions with like denominators. - Decompose fractions as a sum of fractions with the same denominators in more than one way.	

	• Use fraction models, number lines, and equations to represent word problems. Lesson 21: • Decompose fractions greater than 1 into a fraction equivalent to a whole number and a fraction less than 1. • Write a mixed number as a fraction and write a fraction greater than 1 as a mixed number. • Add and subtract mixed numbers with like denominators. • Write and solve an equation with mixed numbers with like denominators in order to solve a word problem. Lesson 22: • Make a line plot that displays data in fractional units. • Solve addition word problems by using a line plot. • Solve subtraction word problems by using a line plot. Lesson 23: • Multiply a unit fraction (numerator of 1) by a whole number. • Multiply a fraction with a numerator greater than 1 by a whole number. Lesson 24: • Solve word problems that involve multiplying a fraction by a whole number. Lesson 25: • Write a fraction that has a denominator of 10 as an equivalent fraction with a denominator of 100. • Explain the relationship between tenths and hundredths. • Add two fractions with denominators of 10 and 100. Lesson 26: • Write fractions with denominators of 10 or 100 as decimals. • Write decimals as fractions with denominators of 10 or 100. Lesson 27: • Compare two decimals to hundredths, using the $>$, $<$, and $=$ symbols. • Solve word problems involving comparisons of decimals in tenths and in hundredths. Lesson 28: • Solve word problems involving time and money. • Convert larger units of measure to smaller units in order to solve word problems about time. • Convert amounts of money in bills and coins to solve word problems about money. • Write and solve equations in order to solve word problems involving time and money. Lesson 29: • Solve word problems involving length, liquid volume, mass, and weight. • Convert larger units of measure to smaller units in order to solve measurement word problems. • Write and solve equations in order to solve measurement word problems.
Content Vocabulary	Mathematical Vocabulary
	Denominator, equivalent fractions, fraction, numerator, unit fraction, benchmark fraction, common denominator, compare, greater than symbol, less than symbol, decompose, mixed number, line plot, data, multiplication, multiply, product, hundredths, tenths, decimal, decimal point, weight, liquid volume, mass

	Academic Vocabulary
	Model, shade, connection, compare, altogether, rest, farther, discuss, occur, construct, batch, confidence, location, counterexample, given
	Additional Vocabulary
Assessments, Products, Projects	Lesson quizzes Unit Assessments
Text, Materials, and Resources	Presentation Slides and: Lesson 17: Lesson 18: fraction bars, fraction circles, fraction models, fraction tiles, index cards, number lines, hundredth grids, tenths grids Lesson 19: Lesson 20: counters, fraction bars, fraction circles, fraction models, fraction tiles, number lines, index cards Lesson 21: fraction circles, fraction models, fraction tiles, index cards, number lines Lesson 22: fraction bars, fraction circles, fraction models, fraction tiles, grid paper, number lines Lesson 23: Lesson 24: fraction bars, fraction circles, fraction models, fraction tiles, grid paper, number lines, measuring spoons Lesson 25: base-ten blocks, hundredths grids, index cards, number lines, tenths grids, play money Lesson 26: base-ten blocks, hundredths grids, index cards, play money, decimal place-value charts, tenths grids Lesson 27: base-ten blocks, hundredths decimal place-value charts, index cards, number lines, tenths grids Lesson 28: clocks, index cards, math reference sheet, number lines, play money, sticky notes Lesson 29: counters, math reference sheet, number lines, rulers, grid paper

	Name of Course: iReady Curriculum Team Members: 4th Grade
Unit	5: Geometry and Measurement: Figures, Classification, and Symmetry
Essential Questions	How can I identify and draw points, lines, line segments, rays and angles in two-dimensional figures? How can I measure and draw angles? How can angles be composed or decomposed into different sizes?

	How can I classify two-dimensional figures? What exactly is a line of symmetry?	
Content Standards	4.G.A.1, 4.MD.C.5, 4.MD.C.6, 4.MD.C.7, 4.G.A.2, 4.G.A.3	
Concepts and Subskills	Students will understand: • Points, lines, line segments, rays and angles are geometric figures that help classify shapes based on their attributes. • Benchmark angles help estimate the size of an angle or a protractor can be used for an accurate measurement. • Angles, parallel lines and perpendicular lines help classify figures.	Students will be skilled at: • Identifying points, lines, line segments, rays, and perpendicular and parallel lines. • Measuring angles using a protractor. • Add and subtract angle measures to solve problems. • Classifying two-dimensional figures based on sides and angles. • Drawing and identifying lines of symmetry in shapes
Content Objectives (Student Friendly Language)	Lesson 30: • Identify and draw points, lines, line segments, rays, and angles and identify them in two-dimensional figures. • Recognize an angle as a geometric shape. • Identify acute, right and obtuse angles in two-dimensional figures. • Identify and draw parallel and perpendicular lines, distinguish between the two, and identify them in two-dimensional figures. Lesson 31: • Recognize the relationship between the measure of an angle and the part of a circle that the angle turns through. • Use a protractor to measure an angle. • Use benchmark angle measures to estimate the measure of an angle. • Draw an angle of a specific degree. Lesson 32: • Recognize that an angle can be decomposed into several smaller angles. • Recognize that several smaller angles can be combined to form a larger angle. • Add and subtract to find angle measures. • Use addition and subtraction to solve word problems about angle measures. Lesson 33: • Sort two-dimensional figures based on parallel or perpendicular sides and on acute, obtuse, or right angles. • Recognize that triangles can be classified based on the length of their sides (isosceles, equilateral, scalene). • Name a triangle based on the kind of angle it has (acute, obtuse, right). Lesson 34: • Recognize lines of symmetry in two-dimensional figures. • Draw lines of symmetry in two-dimensional figures.	
Content	Mathematical Vocabulary	

Vocabulary	Acute angle, angle, line, line segment, obtuse angle, parallel lines, perpendicular lines, point, ray, right angle, vertex, degree, protractor, compose, decompose, acute triangle, equilateral triangle, hexagon, isosceles triangle, obtuse triangle, polygon, right triangle, scalene triangle, trapezoid (inclusive and exclusive definitions), parallelogram, line of symmetry
	Academic Vocabulary
	Assumption, characteristic, exactly, line up, section, relationship, at least, in common, exactly
	Additional Vocabulary
Assessments, Products, Projects	Lesson quizzes Unit assessments
Text, Materials, and Resources	Presentation slides and: Lesson 30: chenille stems, geoboards, grid paper, rulers, tracing paper Lesson 31: clock face, clocks, index cards, sticky notes, protractors, rulers Lesson 32: index cards, protractors, rulers, sticky notes, modeling clay, chenille stems, straws Lesson 33: index cards, pattern blocks, protractors, rulers Lesson 34: geoboards, grid paper, pattern blocks, rulers, tracing paper, index cards