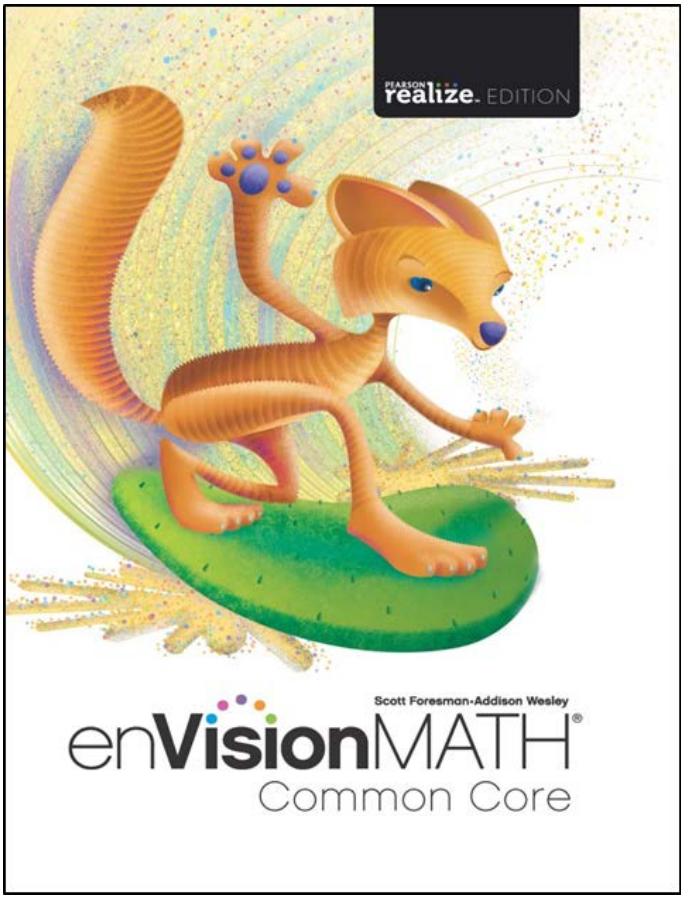
An Alignment of
Minnesota Academic Standards for Mathematics 2007

Minnesota Department of Education



To the Lessons of
enVisionMATH Common Core
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Grade 6

ALWAYS LEARNING PEARSON

An Alignment of the Minnesota Academic Standards for Mathematics 2007 to *enVisionMATH Common Core*, ©2015

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Expression and Equations	
Topic 1: Variables and Expressions	
Lesson 1-1: Exponents	**6.2.2.1** Apply the associative, commutative and distributive properties and order of operations to generate equivalent expressions and to solve problems involving positive rational numbers. **6.2.3.2** Solve equations involving positive rational numbers using number sense, properties of arithmetic and the idea of maintaining equality on both sides of the equation. Interpret a solution in the original context and assess the reasonableness of results. **4.2.2.1** Understand how to interpret number sentences involving multiplication, division and unknowns. Use real-world situations involving multiplication or division to represent number sentences. **5.2.2.1** Apply the commutative, associative and distributive properties and order of operations to generate equivalent numerical expressions and to solve problems involving whole numbers.
Lesson 1-2: Properties of Operations	**6.2.2.1** Apply the associative, commutative and distributive properties and order of operations to generate equivalent expressions and to solve problems involving positive rational numbers. **6.2.3.2** Solve equations involving positive rational numbers using number sense, properties of arithmetic and the idea of maintaining equality on both sides of the equation. Interpret a solution in the original context and assess the reasonableness of results. **4.2.2.1** Understand how to interpret number sentences involving multiplication, division and unknowns. Use real-world situations involving multiplication or division to represent number sentences.

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(Continued) Lesson 1-2: Properties of Operations	**5.2.2.1** Apply the commutative, associative and distributive properties and order of operations to generate equivalent numerical expressions and to solve problems involving whole numbers.
Lesson 1-3: Order of Operations	**6.2.2.1** Apply the associative, commutative and distributive properties and order of operations to generate equivalent expressions and to solve problems involving positive rational numbers. **6.2.3.2** Solve equations involving positive rational numbers using number sense, properties of arithmetic and the idea of maintaining equality on both sides of the equation. Interpret a solution in the original context and assess the reasonableness of results. **4.2.2.1** Understand how to interpret number sentences involving multiplication, division and unknowns. Use real-world situations involving multiplication or division to represent number sentences. **5.2.2.1** Apply the commutative, associative and distributive properties and order of operations to generate equivalent numerical expressions and to solve problems involving whole numbers.

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Lesson 1-4: The Distributive Property	**6.2.2.1** Apply the associative, commutative and distributive properties and order of operations to generate equivalent expressions and to solve problems involving positive rational numbers. **6.2.3.2** Solve equations involving positive rational numbers using number sense, properties of arithmetic and the idea of maintaining equality on both sides of the equation. Interpret a solution in the original context and assess the reasonableness of results. **4.2.2.1** Understand how to interpret number sentences involving multiplication, division and unknowns. Use real-world situations involving multiplication or division to represent number sentences. **5.2.2.1** Apply the commutative, associative and distributive properties and order of operations to generate equivalent numerical expressions and to solve problems involving whole numbers.
Lesson 1-5: Evaluating Numerical Expressions	**6.2.1.1** Understand that a variable can be used to represent a quantity that can change, often in relationship to another changing quantity. Use variables in various contexts. **6.2.2.1** Apply the associative, commutative and distributive properties and order of operations to generate equivalent expressions and to solve problems involving positive rational numbers. **6.2.3.2** Solve equations involving positive rational numbers using number sense, properties of arithmetic and the idea of maintaining equality on both sides of the equation. Interpret a solution in the original context and assess the reasonableness of results.

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(Continued) Lesson 1-5: Evaluating Numerical Expressions	**4.2.2.1** Understand how to interpret number sentences involving multiplication, division and unknowns. Use real-world situations involving multiplication or division to represent number sentences. **5.2.2.1** Apply the commutative, associative and distributive properties and order of operations to generate equivalent numerical expressions and to solve problems involving whole numbers. **5.2.3.3** Evaluate expressions and solve equations involving variables when values for the variables are given.
Lesson 1-6: Using Variables to Write Expressions	**6.2.1.1** Understand that a variable can be used to represent a quantity that can change, often in relationship to another changing quantity. Use variables in various contexts. **6.2.3.1** Represent real-world or mathematical situations using equations and inequalities involving variables and positive rational numbers. **4.2.2.1** Understand how to interpret number sentences involving multiplication, division and unknowns. Use real-world situations involving multiplication or division to represent number sentences. **5.2.2.1** Apply the commutative, associative and distributive properties and order of operations to generate equivalent numerical expressions and to solve problems involving whole numbers. **5.2.3.3** Evaluate expressions and solve equations involving variables when values for the variables are given.

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Lesson 1-7: Parts of an Expression	For related content, please see: **6.2.1.1** Understand that a variable can be used to represent a quantity that can change, often in relationship to another changing quantity. Use variables in various contexts. **6.2.2.1** Apply the associative, commutative and distributive properties and order of operations to generate equivalent expressions and to solve problems involving positive rational numbers. **4.2.2.1** Understand how to interpret number sentences involving multiplication, division and unknowns. Use real-world situations involving multiplication or division to represent number sentences. **5.2.2.1** Apply the commutative, associative and distributive properties and order of operations to generate equivalent numerical expressions and to solve problems involving whole numbers. **5.2.3.3** Evaluate expressions and solve equations involving variables when values for the variables are given.
Lesson 1-8: Evaluating Algebraic Expressions	**6.2.1.1** Understand that a variable can be used to represent a quantity that can change, often in relationship to another changing quantity. Use variables in various contexts. **6.2.1.2** Represent the relationship between two varying quantities with function rules, graphs and tables; translate between any two of these representations. **6.2.2.1** Apply the associative, commutative and distributive properties and order of operations to generate equivalent expressions and to solve problems involving positive rational numbers.

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(Continued) Lesson 1-8: Evaluating Algebraic Expressions	**4.2.2.1** Understand how to interpret number sentences involving multiplication, division and unknowns. Use real-world situations involving multiplication or division to represent number sentences. **5.2.2.1** Apply the commutative, associative and distributive properties and order of operations to generate equivalent numerical expressions and to solve problems involving whole numbers. **5.2.3.3** Evaluate expressions and solve equations involving variables when values for the variables are given.
Lesson 1-9: Using Expressions to Describe Patterns	**6.2.1.1** Understand that a variable can be used to represent a quantity that can change, often in relationship to another changing quantity. Use variables in various contexts. **6.2.1.2** Represent the relationship between two varying quantities with function rules, graphs and tables; translate between any two of these representations. **4.2.1.1** Create and use input-output rules involving addition, subtraction, multiplication and division to solve problems in various contexts. Record the inputs and outputs in a chart or table. **5.2.1.1** Create and use rules, tables, spreadsheets and graphs to describe patterns of change and solve problems. **5.2.3.3** Evaluate expressions and solve equations involving variables when values for the variables are given.

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Lesson 1-10: Simplifying Algebraic Expressions	**6.2.1.1** Understand that a variable can be used to represent a quantity that can change, often in relationship to another changing quantity. Use variables in various contexts. **6.2.2.1** Apply the associative, commutative and distributive properties and order of operations to generate equivalent expressions and to solve problems involving positive rational numbers. **4.2.2.1** Understand how to interpret number sentences involving multiplication, division and unknowns. Use real-world situations involving multiplication or division to represent number sentences. **5.2.2.1** Apply the commutative, associative and distributive properties and order of operations to generate equivalent numerical expressions and to solve problems involving whole numbers. **5.2.3.3** Evaluate expressions and solve equations involving variables when values for the variables are given.
Lesson 1-11: Writing Equivalent Expressions	**6.2.1.1** Understand that a variable can be used to represent a quantity that can change, often in relationship to another changing quantity. Use variables in various contexts. **6.2.2.1** Apply the associative, commutative and distributive properties and order of operations to generate equivalent expressions and to solve problems involving positive rational numbers. **4.2.2.1** Understand how to interpret number sentences involving multiplication, division and unknowns. Use real-world situations involving multiplication or division to represent number sentences.

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(Continued) Lesson 1-11: Writing Equivalent Expressions	**5.2.3.1** Determine whether an equation or inequality involving a variable is true or false for a given value of the variable.
Lesson 1-12: Equivalent Expressions	**6.2.1.1** Understand that a variable can be used to represent a quantity that can change, often in relationship to another changing quantity. Use variables in various contexts. **6.2.2.1** Apply the associative, commutative and distributive properties and order of operations to generate equivalent expressions and to solve problems involving positive rational numbers. **4.2.2.1** Understand how to interpret number sentences involving multiplication, division and unknowns. Use real-world situations involving multiplication or division to represent number sentences. **5.2.3.1** Determine whether an equation or inequality involving a variable is true or false for a given value of the variable.
Lesson 1-13: Problem Solving: Make an Organized List	**6.2.1.1** Understand that a variable can be used to represent a quantity that can change, often in relationship to another changing quantity. Use variables in various contexts. **6.2.2.1** Apply the associative, commutative and distributive properties and order of operations to generate equivalent expressions and to solve problems involving positive rational numbers. **6.2.1.2** Represent the relationship between two varying quantities with function rules, graphs and tables; translate between any two of these representations.

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(Continued) Lesson 1-13: Problem Solving: Make an Organized List	**4.2.1.1** Create and use input-output rules involving addition, subtraction, multiplication and division to solve problems in various contexts. Record the inputs and outputs in a chart or table. **5.2.1.1** Create and use rules, tables, spreadsheets and graphs to describe patterns of change and solve problems.
Topic 2: Equations and Inequalities	
Lesson 2-1: Understanding Equations	**6.2.1.1** Understand that a variable can be used to represent a quantity that can change, often in relationship to another changing quantity. Use variables in various contexts. **6.2.1.2** Represent the relationship between two varying quantities with function rules, graphs and tables; translate between any two of these representations. **5.2.2.1** Apply the commutative, associative and distributive properties and order of operations to generate equivalent numerical expressions and to solve problems involving whole numbers.
Lesson 2-2: Properties of Equality	**6.2.1.1** Understand that a variable can be used to represent a quantity that can change, often in relationship to another changing quantity. Use variables in various contexts. **6.2.2.1** Apply the associative, commutative and distributive properties and order of operations to generate equivalent expressions and to solve problems involving positive rational numbers. **6.3.2.3** Develop and use formulas for the sums of the interior angles of polygons by decomposing them into triangles.

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(Continued) Lesson 2-2: Properties of Equality	**5.2.2.1** Apply the commutative, associative and distributive properties and order of operations to generate equivalent numerical expressions and to solve problems involving whole numbers.
Lesson 2-3: Solving Addition and Subtraction Equations	**6.2.2.1** Apply the associative, commutative and distributive properties and order of operations to generate equivalent expressions and to solve problems involving positive rational numbers. **6.3.2.3** Develop and use formulas for the sums of the interior angles of polygons by decomposing them into triangles. **5.2.3.3** Evaluate expressions and solve equations involving variables when values for the variables are given.
Lesson 2-4: Problem Solving: Draw a Picture and Write an Equation	**6.2.1.1** Understand that a variable can be used to represent a quantity that can change, often in relationship to another changing quantity. Use variables in various contexts. **6.3.2.3** Develop and use formulas for the sums of the interior angles of polygons by decomposing them into triangles. **5.2.3.3** Evaluate expressions and solve equations involving variables when values for the variables are given.

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Lesson 2-5: Solving Multiplication and Division Equations	**6.2.2.1** Apply the associative, commutative and distributive properties and order of operations to generate equivalent expressions and to solve problems involving positive rational numbers. **6.3.2.3** Develop and use formulas for the sums of the interior angles of polygons by decomposing them into triangles. **4.2.2.2** Use multiplication, division and unknowns to represent a given problem situation using a number sentence. Use number sense, properties of multiplication, and the relationship between multiplication and division to find values for the unknowns that make the number sentences true. **5.2.3.3** Evaluate expressions and solve equations involving variables when values for the variables are given.
Lesson 2-6: Solving Equations with Fractions	**6.2.1.1** Understand that a variable can be used to represent a quantity that can change, often in relationship to another changing quantity. Use variables in various contexts. **6.2.2.1** Apply the associative, commutative and distributive properties and order of operations to generate equivalent expressions and to solve problems involving positive rational numbers. **6.3.2.3** Develop and use formulas for the sums of the interior angles of polygons by decomposing them into triangles. **5.2.3.3** Evaluate expressions and solve equations involving variables when values for the variables are given.

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Lesson 2-7: Writing Inequalities	**6.2.1.1** Understand that a variable can be used to represent a quantity that can change, often in relationship to another changing quantity. Use variables in various contexts. **6.2.3.1** Represent real-world or mathematical situations using equations and inequalities involving variables and positive rational numbers. **5.2.3.1** Determine whether an equation or inequality involving a variable is true or false for a given value of the variable. **5.2.3.2** Represent real-world situations using equations and inequalities involving variables. Create real-world situations corresponding to equations and inequalities.
Lesson 2-8: Solving Inequalities	**6.2.1.1** Understand that a variable can be used to represent a quantity that can change, often in relationship to another changing quantity. Use variables in various contexts. **6.2.2.1** Apply the associative, commutative and distributive properties and order of operations to generate equivalent expressions and to solve problems involving positive rational numbers. **6.2.3.1** Represent real-world or mathematical situations using equations and inequalities involving variables and positive rational numbers. **5.2.3.1** Determine whether an equation or inequality involving a variable is true or false for a given value of the variable. **5.2.3.2** Represent real-world situations using equations and inequalities involving variables. Create real-world situations corresponding to equations and inequalities.

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Lesson 2-9: Problem Solving: Draw a Picture and Write an Equation	**6.2.1.1** Understand that a variable can be used to represent a quantity that can change, often in relationship to another changing quantity. Use variables in various contexts. **6.3.2.3** Develop and use formulas for the sums of the interior angles of polygons by decomposing them into triangles. **5.2.3.3** Evaluate expressions and solve equations involving variables when values for the variables are given.
Topic 3: Patterns and Equations	
Lesson 3-1: Dependent and Independent Variables	**6.2.1.1** Understand that a variable can be used to represent a quantity that can change, often in relationship to another changing quantity. Use variables in various contexts. **6.2.1.2** Represent the relationship between two varying quantities with function rules, graphs and tables; translate between any two of these representations.
Lesson 3-2: Patterns and Equations	**6.2.1.1** Understand that a variable can be used to represent a quantity that can change, often in relationship to another changing quantity. Use variables in various contexts. **6.2.1.2** Represent the relationship between two varying quantities with function rules, graphs and tables; translate between any two of these representations. **4.2.1.1** Create and use input-output rules involving addition, subtraction, multiplication and division to solve problems in various contexts. Record the inputs and outputs in a chart or table.

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(Continued) Lesson 3-2: Patterns and Equations	**5.2.1.1** Create and use rules, tables, spreadsheets and graphs to describe patterns of change and solve problems. **5.2.3.3** Evaluate expressions and solve equations involving variables when values for the variables are given.
Lesson 3-3: More Patterns and Equations	**6.2.1.1** Understand that a variable can be used to represent a quantity that can change, often in relationship to another changing quantity. Use variables in various contexts. **6.2.1.2** Represent the relationship between two varying quantities with function rules, graphs and tables; translate between any two of these representations. **4.2.1.1** Create and use input-output rules involving addition, subtraction, multiplication and division to solve problems in various contexts. Record the inputs and outputs in a chart or table. **5.2.1.1** Create and use rules, tables, spreadsheets and graphs to describe patterns of change and solve problems. **5.2.3.3** Evaluate expressions and solve equations involving variables when values for the variables are given.
Lesson 3-4: Problem Solving: Use Reasoning	**6.2.1.1** Understand that a variable can be used to represent a quantity that can change, often in relationship to another changing quantity. Use variables in various contexts. **6.2.1.2** Represent the relationship between two varying quantities with function rules, graphs and tables; translate between any two of these representations.

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(Continued) Lesson 3-4: Problem Solving: Use Reasoning	**4.2.1.1** Create and use input-output rules involving addition, subtraction, multiplication and division to solve problems in various contexts. Record the inputs and outputs in a chart or table. **5.2.1.1** Create and use rules, tables, spreadsheets and graphs to describe patterns of change and solve problems. **5.2.3.3** Evaluate expressions and solve equations involving variables when values for the variables are given.
The Number System	
Topic 4: Achieving Fluency: Adding, Subtracting, and Multiplying Decimals	
Lesson 4-1: Estimating Sums and Differences	**6.1.3.4** Solve real-world and mathematical problems requiring arithmetic with decimals, fractions and mixed numbers. **6.1.3.5** Estimate solutions to problems with whole numbers, fractions and decimals and use the estimates to assess the reasonableness of results in the context of the problem. **4.1.2.7** Round decimals to the nearest tenth. **5.1.2.5** Round numbers to the nearest 0.1, 0.01 and 0.001. **5.1.3.3** Estimate sums and differences of decimals and fractions to assess the reasonableness of results.
Lesson 4-2: Evaluating Addition and Subtraction Expressions	**6.2.1.1** Understand that a variable can be used to represent a quantity that can change, often in relationship to another changing quantity. Use variables in various contexts.

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(Continued) Lesson 4-2: Evaluating Addition and Subtraction Expressions	**6.2.2.1** Apply the associative, commutative and distributive properties and order of operations to generate equivalent expressions and to solve problems involving positive rational numbers. **5.1.3.1** Add and subtract decimals and fractions, using efficient and generalizable procedures, including standard algorithms.
Lesson 4-3: Solving Addition and Subtraction Equations	**6.2.2.1** Apply the associative, commutative and distributive properties and order of operations to generate equivalent expressions and to solve problems involving positive rational numbers. **6.2.3.1** Represent real-world or mathematical situations using equations and inequalities involving variables and positive rational numbers. **6.2.3.2** Solve equations involving positive rational numbers using number sense, properties of arithmetic and the idea of maintaining equality on both sides of the equation. Interpret a solution in the original context and assess the reasonableness of results. **5.1.3.1** Add and subtract decimals and fractions, using efficient and generalizable procedures, including standard algorithms.

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Lesson 4-4: Estimating Products	**6.1.3.1** Multiply and divide decimals and fractions, using efficient and generalizable procedures, including standard algorithms. **6.1.3.4** Solve real-world and mathematical problems requiring arithmetic with decimals, fractions and mixed numbers. **6.1.3.5** Estimate solutions to problems with whole numbers, fractions and decimals and use the estimates to assess the reasonableness of results in the context of the problem. **4.1.2.7** Round decimals to the nearest tenth. **5.1.2.5** Round numbers to the nearest 0.1, 0.01 and 0.001.
Lesson 4-5: Multiplying Decimals	**6.1.3.1** Multiply and divide decimals and fractions, using efficient and generalizable procedures, including standard algorithms. **6.1.3.4** Solve real-world and mathematical problems requiring arithmetic with decimals, fractions and mixed numbers.
Lesson 4-6: Problem Solving: Make a Table and Look for a Pattern	**6.2.1.2** Represent the relationship between two varying quantities with function rules, graphs and tables; translate between any two of these representations. **4.2.1.1** Create and use input-output rules involving addition, subtraction, multiplication and division to solve problems in various contexts. Record the inputs and outputs in a chart or table. **5.2.1.1** Create and use rules, tables, spreadsheets and graphs to describe patterns of change and solve problems.

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Topic 5: Achieving Fluency: Dividing Whole Numbers and Decimals	
Lesson 5-1: Estimating Quotients: 2 Digit Divisors	**6.1.3.5** Estimate solutions to problems with whole numbers, fractions and decimals and use the estimates to assess the reasonableness of results in the context of the problem. **4.1.1.4** Estimate products and quotients of multi-digit whole numbers by using rounding, benchmarks and place value to assess the reasonableness of results. **4.1.1.1** Demonstrate fluency with multiplication and division facts. **5.1.1.3** Estimate solutions to arithmetic problems in order to assess the reasonableness of results.
Lesson 5-2: Dividing Whole Numbers: 2-Digit Divisors	For related content, please see: **6.1.3.1** Multiply and divide decimals and fractions, using efficient and generalizable procedures, including standard algorithms. **6.1.3.4** Solve real-world and mathematical problems requiring arithmetic with decimals, fractions and mixed numbers. **4.1.1.1** Demonstrate fluency with multiplication and division facts. **4.1.1.6** Use strategies and algorithms based on knowledge of place value, equality and properties of operations to divide multi-digit whole numbers by one- or two-digit numbers. Strategies may include mental strategies, partial quotients, the commutative, associative, and distributive properties and repeated subtraction.

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(Continued) Lesson 5-2: Dividing Whole Numbers: 2-Digit Divisors	**5.1.1.1** Divide multi-digit numbers, using efficient and generalizable procedures, based on knowledge of place value, including standard algorithms. Recognize that quotients can be represented in a variety of ways, including a whole number with a remainder, a fraction or mixed number, or a decimal.
Lesson 5-3: More Dividing Whole Numbers	For related content, please see: **6.1.3.1** Multiply and divide decimals and fractions, using efficient and generalizable procedures, including standard algorithms. **6.1.3.4** Solve real-world and mathematical problems requiring arithmetic with decimals, fractions and mixed numbers. **4.1.1.1** Demonstrate fluency with multiplication and division facts. **4.1.1.6** Use strategies and algorithms based on knowledge of place value, equality and properties of operations to divide multi-digit whole numbers by one- or two-digit numbers. Strategies may include mental strategies, partial quotients, the commutative, associative, and distributive properties and repeated subtraction. **5.1.1.1** Divide multi-digit numbers, using efficient and generalizable procedures, based on knowledge of place value, including standard algorithms. Recognize that quotients can be represented in a variety of ways, including a whole number with a remainder, a fraction or mixed number, or a decimal.

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Lesson 5-4: Dividing Decimals by a Whole Number	**6.1.3.1** Multiply and divide decimals and fractions, using efficient and generalizable procedures, including standard algorithms. **6.1.3.4** Solve real-world and mathematical problems requiring arithmetic with decimals, fractions and mixed numbers. **4.1.1.6** Use strategies and algorithms based on knowledge of place value, equality and properties of operations to divide multi-digit whole numbers by one- or two-digit numbers. Strategies may include mental strategies, partial quotients, the commutative, associative, and distributive properties and repeated subtraction. **5.1.1.1** Divide multi-digit numbers, using efficient and generalizable procedures, based on knowledge of place value, including standard algorithms. Recognize that quotients can be represented in a variety of ways, including a whole number with a remainder, a fraction or mixed number, or a decimal.
Lesson 5-5: Dividing Decimals	**6.1.3.1** Multiply and divide decimals and fractions, using efficient and generalizable procedures, including standard algorithms. **6.1.3.4** Solve real-world and mathematical problems requiring arithmetic with decimals, fractions and mixed numbers. **4.1.1.6** Use strategies and algorithms based on knowledge of place value, equality and properties of operations to divide multi-digit whole numbers by one- or two-digit numbers. Strategies may include mental strategies, partial quotients, the commutative, associative, and distributive properties and repeated subtraction.

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(Continued) Lesson 5-5: Dividing Decimals	**5.1.1.1** Divide multi-digit numbers, using efficient and generalizable procedures, based on knowledge of place value, including standard algorithms. Recognize that quotients can be represented in a variety of ways, including a whole number with a remainder, a fraction or mixed number, or a decimal. **5.1.1.2** Consider the context in which a problem is situated to select the most useful form of the quotient for the solution and use the context to interpret the quotient appropriately.
Lesson 5-6: Evaluating Expressions with Decimals	**6.1.3.4** Solve real-world and mathematical problems requiring arithmetic with decimals, fractions and mixed numbers. **6.2.1.1** Understand that a variable can be used to represent a quantity that can change, often in relationship to another changing quantity. Use variables in various contexts. **6.2.2.1** Apply the associative, commutative and distributive properties and order of operations to generate equivalent expressions and to solve problems involving positive rational numbers. **4.2.2.1** Understand how to interpret number sentences involving multiplication, division and unknowns. Use real-world situations involving multiplication or division to represent number sentences. **5.2.2.1** Apply the commutative, associative and distributive properties and order of operations to generate equivalent numerical expressions and to solve problems involving whole numbers.

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Lesson 5-7: Solving Equations with Decimals	**6.1.3.4** Solve real-world and mathematical problems requiring arithmetic with decimals, fractions and mixed numbers. **6.2.1.1** Understand that a variable can be used to represent a quantity that can change, often in relationship to another changing quantity. Use variables in various contexts. **6.2.3.2** Solve equations involving positive rational numbers using number sense, properties of arithmetic and the idea of maintaining equality on both sides of the equation. Interpret a solution in the original context and assess the reasonableness of results. **4.2.2.1** Understand how to interpret number sentences involving multiplication, division and unknowns. Use real-world situations involving multiplication or division to represent number sentences. **5.2.2.1** Apply the commutative, associative and distributive properties and order of operations to generate equivalent numerical expressions and to solve problems involving whole numbers. **5.2.3.3** Evaluate expressions and solve equations involving variables when values for the variables are given.
Lesson 5-8: Problem Solving: Multiple-Step Problems	**6.2.3.1** Represent real-world or mathematical situations using equations and inequalities involving variables and positive rational numbers. **5.1.3.4** Solve real-world and mathematical problems requiring addition and subtraction of decimals, fractions and mixed numbers, including those involving measurement, geometry and data.

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Topic 6: Dividing Fractions	
Lesson 6-1: Greatest Common Factor	**6.1.1.5** Factor whole numbers; express a whole number as a product of prime factors with exponents. **6.1.1.6** Determine greatest common factors and least common multiples. Use common factors and common multiples to calculate with fractions and find equivalent fractions.
Lesson 6-2: Least Common Multiple	**6.1.1.6** Determine greatest common factors and least common multiples. Use common factors and common multiples to calculate with fractions and find equivalent fractions.
Lesson 6-3: Understanding Division of Fractions	**6.1.3.2** Use the meanings of fractions, multiplication, division and the inverse relationship between multiplication and division to make sense of procedures for multiplying and dividing fractions. **6.1.3.4** Solve real-world and mathematical problems requiring arithmetic with decimals, fractions and mixed numbers. **5.1.1.1** Divide multi-digit numbers, using efficient and generalizable procedures, based on knowledge of place value, including standard algorithms. Recognize that quotients can be represented in a variety of ways, including a whole number with a remainder, a fraction or mixed number, or a decimal.
Lesson 6-4: Dividing Whole Numbers by Fractions	**6.1.3.2** Use the meanings of fractions, multiplication, division and the inverse relationship between multiplication and division to make sense of procedures for multiplying and dividing fractions. **6.1.3.4** Solve real-world and mathematical problems requiring arithmetic with decimals, fractions and mixed numbers.

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(Continued) Lesson 6-4: Dividing Whole Numbers by Fractions	**4.1.1.1** Demonstrate fluency with multiplication and division facts. **5.1.1.1** Divide multi-digit numbers, using efficient and generalizable procedures, based on knowledge of place value, including standard algorithms. Recognize that quotients can be represented in a variety of ways, including a whole number with a remainder, a fraction or mixed number, or a decimal.
Lesson 6-5: Modeling Division of Fractions	**6.1.3.2** Use the meanings of fractions, multiplication, division and the inverse relationship between multiplication and division to make sense of procedures for multiplying and dividing fractions. **6.1.3.4** Solve real-world and mathematical problems requiring arithmetic with decimals, fractions and mixed numbers. **4.1.1.1** Demonstrate fluency with multiplication and division facts. **5.1.1.1** Divide multi-digit numbers, using efficient and generalizable procedures, based on knowledge of place value, including standard algorithms. Recognize that quotients can be represented in a variety of ways, including a whole number with a remainder, a fraction or mixed number, or a decimal.
Lesson 6-6: Dividing Fractions	**6.1.3.2** Use the meanings of fractions, multiplication, division and the inverse relationship between multiplication and division to make sense of procedures for multiplying and dividing fractions. **6.1.3.4** Solve real-world and mathematical problems requiring arithmetic with decimals, fractions and mixed numbers.

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(Continued) Lesson 6-6: Dividing Fractions	**4.1.1.1** Demonstrate fluency with multiplication and division facts. **5.1.1.1** Divide multi-digit numbers, using efficient and generalizable procedures, based on knowledge of place value, including standard algorithms. Recognize that quotients can be represented in a variety of ways, including a whole number with a remainder, a fraction or mixed number, or a decimal.
Lesson 6-7: Estimating Mixed Number Quotients	**6.1.3.2** Use the meanings of fractions, multiplication, division and the inverse relationship between multiplication and division to make sense of procedures for multiplying and dividing fractions. **6.1.3.5** Estimate solutions to problems with whole numbers, fractions and decimals and use the estimates to assess the reasonableness of results in the context of the problem. **4.1.1.1** Demonstrate fluency with multiplication and division facts. **5.1.3.3** Estimate sums and differences of decimals and fractions to assess the reasonableness of results.
Lesson 6-8: Dividing Mixed Numbers	**6.1.3.2** Use the meanings of fractions, multiplication, division and the inverse relationship between multiplication and division to make sense of procedures for multiplying and dividing fractions. **6.1.3.4** Solve real-world and mathematical problems requiring arithmetic with decimals, fractions and mixed numbers. **4.1.1.1** Demonstrate fluency with multiplication and division facts.

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(Continued) Lesson 6-8: Dividing Mixed Numbers	**5.1.1.1** Divide multi-digit numbers, using efficient and generalizable procedures, based on knowledge of place value, including standard algorithms. Recognize that quotients can be represented in a variety of ways, including a whole number with a remainder, a fraction or mixed number, or a decimal.
Lesson 6-9: Evaluating Expressions with Fractions	**6.2.2.1** Apply the associative, commutative and distributive properties and order of operations to generate equivalent expressions and to solve problems involving positive rational numbers. **6.1.3.4** Solve real-world and mathematical problems requiring arithmetic with decimals, fractions and mixed numbers. **4.2.2.2** Use multiplication, division and unknowns to represent a given problem situation using a number sentence. Use number sense, properties of multiplication, and the relationship between multiplication and division to find values for the unknowns that make the number sentences true. **5.2.2.1** Apply the commutative, associative and distributive properties and order of operations to generate equivalent numerical expressions and to solve problems involving whole numbers.
Lesson 6-10: Solving Equations with Fractions	**6.2.2.1** Apply the associative, commutative and distributive properties and order of operations to generate equivalent expressions and to solve problems involving positive rational numbers. **6.2.3.1** Represent real-world or mathematical situations using equations and inequalities involving variables and positive rational numbers.

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(Continued) Lesson 6-10: Solving Equations with Fractions	**6.2.3.2** Solve equations involving positive rational numbers using number sense, properties of arithmetic and the idea of maintaining equality on both sides of the equation. Interpret a solution in the original context and assess the reasonableness of results. **4.2.2.2** Use multiplication, division and unknowns to represent a given problem situation using a number sentence. Use number sense, properties of multiplication, and the relationship between multiplication and division to find values for the unknowns that make the number sentences true. **5.2.2.1** Apply the commutative, associative and distributive properties and order of operations to generate equivalent numerical expressions and to solve problems involving whole numbers. **5.2.3.3** Evaluate expressions and solve equations involving variables when values for the variables are given.
Lesson 6-11: Problem Solving: Look for a Pattern	**6.2.1.2** Represent the relationship between two varying quantities with function rules, graphs and tables; translate between any two of these representations. **5.1.1.2** Consider the context in which a problem is situated to select the most useful form of the quotient for the solution and use the context to interpret the quotient appropriately.
Topic 7: Integers and Other Rational Numbers	
Lesson 7-1: Understanding Integers	For related content, please see: **6.1.1.1** Locate positive rational numbers on a number line and plot pairs of positive rational numbers on a coordinate grid.

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Lesson 7-2: Comparing and Ordering Integers	**6.1.1.1** Locate positive rational numbers on a number line and plot pairs of positive rational numbers on a coordinate grid. **6.1.1.2** Compare positive rational numbers represented in various forms. Use the symbols < , = and >. **4.1.2.5** Compare and order decimals and whole numbers using place value, a number line and models such as grids and base 10 blocks. **5.1.2.3** Order fractions and decimals, including mixed numbers and improper fractions, and locate on a number line.
Lesson 7-3: Absolute Value	For related content, please see: **6.1.1.1** Locate positive rational numbers on a number line and plot pairs of positive rational numbers on a coordinate grid. **3.3.3.4** Use an analog thermometer to determine temperature to the nearest degree in Fahrenheit and Celsius.
Lesson 7-4: Rational Numbers on a Number Line	**6.1.1.1** Locate positive rational numbers on a number line and plot pairs of positive rational numbers on a coordinate grid. **4.1.2.5** Compare and order decimals and whole numbers using place value, a number line and models such as grids and base 10 blocks. **5.1.2.3** Order fractions and decimals, including mixed numbers and improper fractions, and locate on a number line.

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Lesson 7-5: Comparing and Ordering Rational Numbers	**6.1.1.1** Locate positive rational numbers on a number line and plot pairs of positive rational numbers on a coordinate grid. **6.1.1.2** Compare positive rational numbers represented in various forms. Use the symbols < , = and >. **4.1.2.5** Compare and order decimals and whole numbers using place value, a number line and models such as grids and base 10 blocks. **5.1.2.3** Order fractions and decimals, including mixed numbers and improper fractions, and locate on a number line.
Lesson 7-6: Problem Solving: Use Reasoning	**6.1.1.2** Compare positive rational numbers represented in various forms. Use the symbols < , = and >.
Topic 8: Coordinate Geometry	
Lesson 8-1: Integers on the Coordinate Plane	**6.1.1.1** Locate positive rational numbers on a number line and plot pairs of positive rational numbers on a coordinate grid. **5.2.1.2** Use a rule or table to represent ordered pairs of positive integers and graph these ordered pairs on a coordinate system.
Lesson 8-2: Rational Numbers on the Coordinate Plane	**6.1.1.1** Locate positive rational numbers on a number line and plot pairs of positive rational numbers on a coordinate grid. **5.2.1.2** Use a rule or table to represent ordered pairs of positive integers and graph these ordered pairs on a coordinate system.

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Lesson 8-3: Distance on the Coordinate Plane	For related content, please see: **6.1.1.1** Locate positive rational numbers on a number line and plot pairs of positive rational numbers on a coordinate grid. **5.2.1.2** Use a rule or table to represent ordered pairs of positive integers and graph these ordered pairs on a coordinate system.
Lesson 8-4: Polygons on the Coordinate Plane	For related content, please see: **6.1.1.1** Locate positive rational numbers on a number line and plot pairs of positive rational numbers on a coordinate grid. **5.2.1.2** Use a rule or table to represent ordered pairs of positive integers and graph these ordered pairs on a coordinate system.
Lesson 8-5: Graphing Equations	For related content, please see: **6.1.1.1** Locate positive rational numbers on a number line and plot pairs of positive rational numbers on a coordinate grid. **6.2.3.1** Represent real-world or mathematical situations using equations and inequalities involving variables and positive rational numbers. **5.2.1.2** Use a rule or table to represent ordered pairs of positive integers and graph these ordered pairs on a coordinate system.

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Lesson 8-6: More Graphing Equations	For related content, please see: **6.1.1.1** Locate positive rational numbers on a number line and plot pairs of positive rational numbers on a coordinate grid. **6.2.3.1** Represent real-world or mathematical situations using equations and inequalities involving variables and positive rational numbers. **5.2.1.2** Use a rule or table to represent ordered pairs of positive integers and graph these ordered pairs on a coordinate system.
Lesson 8-7: Problem Solving: Multiple-Step Problems	**6.1.3.4** Solve real-world and mathematical problems requiring arithmetic with decimals, fractions and mixed numbers. **4.1.1.5** Solve multi-step real-world and mathematical problems requiring the use of addition, subtraction and multiplication of multi-digit whole numbers. Use various strategies, including the relationship between operations, the use of technology, and the context of the problem to assess the reasonableness of results. **4.2.2.1** Understand how to interpret number sentences involving multiplication, division and unknowns. Use real-world situations involving multiplication or division to represent number sentences. **5.1.1.4** Solve real-world and mathematical problems requiring addition, subtraction, multiplication and division of multi-digit whole numbers. Use various strategies, including the inverse relationships between operations, the use of technology, and the context of the problem to assess the reasonableness of results.

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(Continued) Lesson 8-7: Problem Solving: Multiple-Step Problems	**5.1.3.4** Solve real-world and mathematical problems requiring addition and subtraction of decimals, fractions and mixed numbers, including those involving measurement, geometry and data.
Ratios and Proportional Relationships	
Topic 9: Ratios	
Lesson 9-1: Understanding Ratios	**6.1.1.3** Understand that percent represents parts out of 100 and ratios to 100. **6.1.2.1** Identify and use ratios to compare quantities; understand that comparing quantities using ratios is not the same as comparing quantities using subtraction. **6.1.2.2** Apply the relationship between ratios, equivalent fractions and percents to solve problems in various contexts, including those involving mixtures and concentrations.
Lesson 9-2: Equivalent Ratios	**6.1.1.3** Understand that percent represents parts out of 100 and ratios to 100. **6.1.2.1** Identify and use ratios to compare quantities; understand that comparing quantities using ratios is not the same as comparing quantities using subtraction. **6.1.2.2** Apply the relationship between ratios, equivalent fractions and percents to solve problems in various contexts, including those involving mixtures and concentrations.
Lesson 9-3: Modeling Ratios	**6.1.1.3** Understand that percent represents parts out of 100 and ratios to 100. **6.1.2.1** Identify and use ratios to compare quantities; understand that comparing quantities using ratios is not the same as comparing quantities using subtraction.

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Lesson 9-4: Using Ratio Tables	**6.1.1.3** Understand that percent represents parts out of 100 and ratios to 100. **6.1.2.1** Identify and use ratios to compare quantities; understand that comparing quantities using ratios is not the same as comparing quantities using subtraction. **6.1.2.2** Apply the relationship between ratios, equivalent fractions and percents to solve problems in various contexts, including those involving mixtures and concentrations. **4.2.1.1** Create and use input-output rules involving addition, subtraction, multiplication and division to solve problems in various contexts. Record the inputs and outputs in a chart or table. **5.2.1.1** Create and use rules, tables, spreadsheets and graphs to describe patterns of change and solve problems.
Lesson 9-5: Ratios and Graphs (Continued)	**6.1.1.3** Understand that percent represents parts out of 100 and ratios to 100. **6.1.2.1** Identify and use ratios to compare quantities; understand that comparing quantities using ratios is not the same as comparing quantities using subtraction. **6.1.2.2** Apply the relationship between ratios, equivalent fractions and percents to solve problems in various contexts, including those involving mixtures and concentrations. **4.2.1.1** Create and use input-output rules involving addition, subtraction, multiplication and division to solve problems in various contexts. Record the inputs and outputs in a chart or table.

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Lesson 9-5: Ratios and Graphs	**5.2.1.1** Create and use rules, tables, spreadsheets and graphs to describe patterns of change and solve problems.
Lesson 9-6: Problem Solving: Draw a Picture	**6.1.1.3** Understand that percent represents parts out of 100 and ratios to 100. **6.1.2.1** Identify and use ratios to compare quantities; understand that comparing quantities using ratios is not the same as comparing quantities using subtraction. **6.1.2.2** Apply the relationship between ratios, equivalent fractions and percents to solve problems in various contexts, including those involving mixtures and concentrations.
Topic 10: Rates	
Lesson 10-1: Understanding Rates	**6.1.2.3** Determine the rate for ratios of quantities with different units. **6.1.2.4** Use reasoning about multiplication and division to solve ratio and rate problems.
Lesson 10-2: Comparing Rates	**6.1.2.3** Determine the rate for ratios of quantities with different units. **6.1.2.4** Use reasoning about multiplication and division to solve ratio and rate problems.
Lesson 10-3: Unit Rates	**6.1.2.3** Determine the rate for ratios of quantities with different units. **6.1.2.4** Use reasoning about multiplication and division to solve ratio and rate problems.

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Lesson 10-4: Unit Price	**6.1.2.3** Determine the rate for ratios of quantities with different units. **6.1.2.4** Use reasoning about multiplication and division to solve ratio and rate problems.
Lesson 10-5: Constant Speed	**6.1.2.3** Determine the rate for ratios of quantities with different units. **6.1.2.4** Use reasoning about multiplication and division to solve ratio and rate problems. **6.2.1.2** Represent the relationship between two varying quantities with function rules, graphs and tables; translate between any two of these representations.
Lesson 10-6: Converting Customary Units	For related content, please see: **6.3.3.1** Solve problems in various contexts involving conversion of weights, capacities, geometric measurements and times within measurement systems using appropriate units. **6.3.3.2** Estimate weights, capacities and geometric measurements using benchmarks in measurement systems with appropriate units.
Lesson 10-7: Converting Metric Units	For related content, please see: **6.3.3.1** Solve problems in various contexts involving conversion of weights, capacities, geometric measurements and times within measurement systems using appropriate units. **6.3.3.2** Estimate weights, capacities and geometric measurements using benchmarks in measurement systems with appropriate units.

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Lesson 10-8: Problem Solving: Writing to Explain	**6.1.1.3** Understand that percent represents parts out of 100 and ratios to 100. **6.1.2.1** Identify and use ratios to compare quantities; understand that comparing quantities using ratios is not the same as comparing quantities using subtraction. **6.1.2.3** Determine the rate for ratios of quantities with different units.
Topic 11: Percents	
Lesson 11-1: Understanding Percent	**6.1.1.3** Understand that percent represents parts out of 100 and ratios to 100. **6.1.3.3** Calculate the percent of a number and determine what percent one number is of another number to solve problems in various contexts.
Lesson 11-2: Fractions, Decimals, and Percents	**6.1.1.3** Understand that percent represents parts out of 100 and ratios to 100. **6.1.1.4** Determine equivalences among fractions, decimals and percents; select among these representations to solve problems. **6.1.2.2** Apply the relationship between ratios, equivalent fractions and percents to solve problems in various contexts, including those involving mixtures and concentrations.
Lesson 11-3: Percents Greater Than 100 or Less Than 1	**6.1.1.3** Understand that percent represents parts out of 100 and ratios to 100. **6.1.1.4** Determine equivalences among fractions, decimals and percents; select among these representations to solve problems.

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Lesson 11-4: Estimating Percent	**6.1.3.5** Estimate solutions to problems with whole numbers, fractions and decimals and use the estimates to assess the reasonableness of results in the context of the problem.
Lesson 11-5: Finding the Percent of a Number	**6.1.1.3** Understand that percent represents parts out of 100 and ratios to 100. **6.1.1.4** Determine equivalences among fractions, decimals and percents; select among these representations to solve problems. **6.1.3.3** Calculate the percent of a number and determine what percent one number is of another number to solve problems in various contexts.
Lesson 11-6: Finding the Whole	**6.1.2.2** Apply the relationship between ratios, equivalent fractions and percents to solve problems in various contexts, including those involving mixtures and concentrations. **6.1.3.3** Calculate the percent of a number and determine what percent one number is of another number to solve problems in various contexts.
Lesson 11-7: Problem Solving: Reasonableness	**6.1.2.2** Apply the relationship between ratios, equivalent fractions and percents to solve problems in various contexts, including those involving mixtures and concentrations. **6.1.3.3** Calculate the percent of a number and determine what percent one number is of another number to solve problems in various contexts.

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Geometry	
Topic 12: Area	
Lesson 12-1: Area of Rectangles	**6.3.1.2** Calculate the area of quadrilaterals. Quadrilaterals include squares, rectangles, rhombuses, parallelograms, trapezoids and kites. When formulas are used, be able to explain why they are valid. **4.3.2.3** Understand that the area of a two-dimensional figure can be found by counting the total number of same size square units that cover a shape without gaps or overlaps. Justify why length and width are multiplied to find the area of a rectangle by breaking the rectangle into one unit by one unit squares and viewing these as grouped into rows and columns. **4.3.2.4** Find the areas of geometric figures and real-world objects that can be divided into rectangular shapes. Use square units to label area measurements. **5.3.2.1** Develop and use formulas to determine the area of triangles, parallelograms and figures that can be decomposed into triangles.
Lesson 12-2: Area of Parallelograms and Rhombuses	**6.3.1.2** Calculate the area of quadrilaterals. Quadrilaterals include squares, rectangles, rhombuses, parallelograms, trapezoids and kites. When formulas are used, be able to explain why they are valid. **4.3.2.3** Understand that the area of a two-dimensional figure can be found by counting the total number of same size square units that cover a shape without gaps or overlaps. Justify why length and width are multiplied to find the area of a rectangle by breaking the rectangle into one unit by one unit squares and viewing these as grouped into rows and columns.

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(Continued) Lesson 12-2: Area of Parallelograms and Rhombuses	**4.3.2.4** Find the areas of geometric figures and real-world objects that can be divided into rectangular shapes. Use square units to label area measurements. **5.3.2.1** Develop and use formulas to determine the area of triangles, parallelograms and figures that can be decomposed into triangles.
Lesson 12-3: Area of Triangles	**6.3.1.2** Calculate the area of quadrilaterals. Quadrilaterals include squares, rectangles, rhombuses, parallelograms, trapezoids and kites. When formulas are used, be able to explain why they are valid. **4.3.2.3** Understand that the area of a two-dimensional figure can be found by counting the total number of same size square units that cover a shape without gaps or overlaps. Justify why length and width are multiplied to find the area of a rectangle by breaking the rectangle into one unit by one unit squares and viewing these as grouped into rows and columns. **4.3.2.4** Find the areas of geometric figures and real-world objects that can be divided into rectangular shapes. Use square units to label area measurements. **5.3.2.1** Develop and use formulas to determine the area of triangles, parallelograms and figures that can be decomposed into triangles.

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Lesson 12-4: Area of Special Quadrilaterals	**6.3.1.2** Calculate the area of quadrilaterals. Quadrilaterals include squares, rectangles, rhombuses, parallelograms, trapezoids and kites. When formulas are used, be able to explain why they are valid. **4.3.2.3** Understand that the area of a two-dimensional figure can be found by counting the total number of same size square units that cover a shape without gaps or overlaps. Justify why length and width are multiplied to find the area of a rectangle by breaking the rectangle into one unit by one unit squares and viewing these as grouped into rows and columns. **4.3.2.4** Find the areas of geometric figures and real-world objects that can be divided into rectangular shapes. Use square units to label area measurements. **5.3.2.1** Develop and use formulas to determine the area of triangles, parallelograms and figures that can be decomposed into triangles.
Lesson 12-5: Finding Areas of Polygons	**6.3.1.2** Calculate the area of quadrilaterals. Quadrilaterals include squares, rectangles, rhombuses, parallelograms, trapezoids and kites. When formulas are used, be able to explain why they are valid. **4.3.2.3** Understand that the area of a two-dimensional figure can be found by counting the total number of same size square units that cover a shape without gaps or overlaps. Justify why length and width are multiplied to find the area of a rectangle by breaking the rectangle into one unit by one unit squares and viewing these as grouped into rows and columns.

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(Continued) Lesson 12-5: Finding Areas of Polygons	**4.3.2.4** Find the areas of geometric figures and real-world objects that can be divided into rectangular shapes. Use square units to label area measurements. **5.3.2.1** Develop and use formulas to determine the area of triangles, parallelograms and figures that can be decomposed into triangles.
Lesson 12-6: Areas of Polygons on the Coordinate Plane	**6.3.1.2** Calculate the area of quadrilaterals. Quadrilaterals include squares, rectangles, rhombuses, parallelograms, trapezoids and kites. When formulas are used, be able to explain why they are valid. **4.3.2.3** Understand that the area of a two-dimensional figure can be found by counting the total number of same size square units that cover a shape without gaps or overlaps. Justify why length and width are multiplied to find the area of a rectangle by breaking the rectangle into one unit by one unit squares and viewing these as grouped into rows and columns. **4.3.2.4** Find the areas of geometric figures and real-world objects that can be divided into rectangular shapes. Use square units to label area measurements. **5.3.2.1** Develop and use formulas to determine the area of triangles, parallelograms and figures that can be decomposed into triangles.

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Lesson 12-7: Problem Solving: Use Objects	**6.3.1.2** Calculate the area of quadrilaterals. Quadrilaterals include squares, rectangles, rhombuses, parallelograms, trapezoids and kites. When formulas are used, be able to explain why they are valid. **4.3.2.3** Understand that the area of a two-dimensional figure can be found by counting the total number of same size square units that cover a shape without gaps or overlaps. Justify why length and width are multiplied to find the area of a rectangle by breaking the rectangle into one unit by one unit squares and viewing these as grouped into rows and columns. **4.3.2.4** Find the areas of geometric figures and real-world objects that can be divided into rectangular shapes. Use square units to label area measurements. **5.3.2.1** Develop and use formulas to determine the area of triangles, parallelograms and figures that can be decomposed into triangles.
Topic 13: Surface Area and Volume	
Lesson 13-1: Solid Figures and Nets	**6.3.1.1** Calculate the surface area and volume of prisms and use appropriate units, such as cm2 and cm3. Justify the formulas used. Justification may involve decomposition, nets or other models. **5.3.1.1** Describe and classify three-dimensional figures including cubes, prisms and pyramids by the number of edges, faces or vertices as well as the types of faces. **5.3.1.2** Recognize and draw a net for a three-dimensional figure. **5.3.2.2** Use various tools and strategies to measure the volume and surface area of objects that are shaped like rectangular prisms.

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Lesson 13-2: Surface Area of Prisms and Pyramids	**6.3.1.1** Calculate the surface area and volume of prisms and use appropriate units, such as cm2 and cm3. Justify the formulas used. Justification may involve decomposition, nets or other models. **5.3.1.1** Describe and classify three-dimensional figures including cubes, prisms and pyramids by the number of edges, faces or vertices as well as the types of faces. **5.3.1.2** Recognize and draw a net for a three-dimensional figure. **5.3.2.2** Use various tools and strategies to measure the volume and surface area of objects that are shaped like rectangular prisms.
Lesson 13-3: Modeling Volume	**6.3.1.1** Calculate the surface area and volume of prisms and use appropriate units, such as cm2 and cm3. Justify the formulas used. Justification may involve decomposition, nets or other models. **5.3.1.1** Describe and classify three-dimensional figures including cubes, prisms and pyramids by the number of edges, faces or vertices as well as the types of faces. **5.3.2.2** Use various tools and strategies to measure the volume and surface area of objects that are shaped like rectangular prisms. **5.3.2.3** Understand that the volume of a three-dimensional figure can be found by counting the total number of same-sized cubic units that fill a shape without gaps or overlaps. Use cubic units to label volume measurements.

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(Continued) Lesson 13-3: Modeling Volume	**5.3.2.4** Develop and use the formulas V = lwh and V = Bh to determine the volume of rectangular prisms. Justify why base area B and height h are multiplied to find the volume of a rectangular prism by breaking the prism into layers of unit cubes.
Lesson 13-4: Volume with Fractional Edge Lengths	**6.3.1.1** Calculate the surface area and volume of prisms and use appropriate units, such as cm2 and cm3. Justify the formulas used. Justification may involve decomposition, nets or other models. **5.3.1.1** Describe and classify three-dimensional figures including cubes, prisms and pyramids by the number of edges, faces or vertices as well as the types of faces. **5.3.2.2** Use various tools and strategies to measure the volume and surface area of objects that are shaped like rectangular prisms. **5.3.2.3** Understand that the volume of a three-dimensional figure can be found by counting the total number of same-sized cubic units that fill a shape without gaps or overlaps. Use cubic units to label volume measurements. **5.3.2.4** Develop and use the formulas V = lwh and V = Bh to determine the volume of rectangular prisms. Justify why base area B and height h are multiplied to find the volume of a rectangular prism by breaking the prism into layers of unit cubes.

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Lesson 13-5: Problem Solving: Use Objects and Reasoning	**6.3.1.1** Calculate the surface area and volume of prisms and use appropriate units, such as cm2 and cm3. Justify the formulas used. Justification may involve decomposition, nets or other models. **5.3.1.1** Describe and classify three-dimensional figures including cubes, prisms and pyramids by the number of edges, faces or vertices as well as the types of faces. **5.3.2.2** Use various tools and strategies to measure the volume and surface area of objects that are shaped like rectangular prisms. **5.3.2.3** Understand that the volume of a three-dimensional figure can be found by counting the total number of same-sized cubic units that fill a shape without gaps or overlaps. Use cubic units to label volume measurements. **5.3.2.4** Develop and use the formulas V = lwh and V = Bh to determine the volume of rectangular prisms. Justify why base area B and height h are multiplied to find the volume of a rectangular prism by breaking the prism into layers of unit cubes.

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Statistics and Probability	
Topic 14: Statistics	
Lesson 14-1: Statistical Questions	For related content, please see: **6.4.1.3** Perform experiments for situations in which the probabilities are known, compare the resulting relative frequencies with the known probabilities; know that there may be differences. **5.4.1.2** Create and analyze double-bar graphs and line graphs by applying understanding of whole numbers, fractions and decimals. Know how to create spreadsheet tables and graphs to display data. **4.4.1.1** Use tables, bar graphs, timelines and Venn diagrams to display data sets. The data may include fractions or decimals. Understand that spreadsheet tables and graphs can be used to display data.
Lesson 14-2: Looking at Data Sets	For related content, please see: **5.4.1.2** Create and analyze double-bar graphs and line graphs by applying understanding of whole numbers, fractions and decimals. Know how to create spreadsheet tables and graphs to display data. **4.4.1.1** Use tables, bar graphs, timelines and Venn diagrams to display data sets. The data may include fractions or decimals. Understand that spreadsheet tables and graphs can be used to display data.
Lesson 14-3: Mean	**5.4.1.1** Know and use the definitions of the mean, median and range of a set of data. Know how to use a spreadsheet to find the mean, median and range of a data set. Understand that the mean is a "leveling out" of data. **5.4.1.2** Create and analyze double-bar graphs and line graphs by applying understanding of whole numbers, fractions and decimals. Know how to create spreadsheet tables and graphs to display data.

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(Continued) Lesson 14-3: Mean	**4.4.1.1** Use tables, bar graphs, timelines and Venn diagrams to display data sets. The data may include fractions or decimals. Understand that spreadsheet tables and graphs can be used to display data.
Lesson 14-4: Median, Mode, and Range	**5.4.1.1** Know and use the definitions of the mean, median and range of a set of data. Know how to use a spreadsheet to find the mean, median and range of a data set. Understand that the mean is a "leveling out" of data. **5.4.1.2** Create and analyze double-bar graphs and line graphs by applying understanding of whole numbers, fractions and decimals. Know how to create spreadsheet tables and graphs to display data. **4.4.1.1** Use tables, bar graphs, timelines and Venn diagrams to display data sets. The data may include fractions or decimals. Understand that spreadsheet tables and graphs can be used to display data.
Lesson 14-5: Frequency Tables and Histograms	**5.4.1.2** Create and analyze double-bar graphs and line graphs by applying understanding of whole numbers, fractions and decimals. Know how to create spreadsheet tables and graphs to display data. **4.4.1.1** Use tables, bar graphs, timelines and Venn diagrams to display data sets. The data may include fractions or decimals. Understand that spreadsheet tables and graphs can be used to display data.
Lesson 14-6: Box Plots	**5.4.1.2** Create and analyze double-bar graphs and line graphs by applying understanding of whole numbers, fractions and decimals. Know how to create spreadsheet tables and graphs to display data.

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(Continued) Lesson 14-6: Box Plots	**4.4.1.1** Use tables, bar graphs, timelines and Venn diagrams to display data sets. The data may include fractions or decimals. Understand that spreadsheet tables and graphs can be used to display data.
Lesson 14-7: Measures of Variability	For related content, please see: **6.4.1.2** Determine the probability of an event using the ratio between the size of the event and the size of the sample space; represent probabilities as percents, fractions and decimals between 0 and 1 inclusive. Understand that probabilities measure likelihood. **5.4.1.2** Create and analyze double-bar graphs and line graphs by applying understanding of whole numbers, fractions and decimals. Know how to create spreadsheet tables and graphs to display data. **4.4.1.1** Use tables, bar graphs, timelines and Venn diagrams to display data sets. The data may include fractions or decimals. Understand that spreadsheet tables and graphs can be used to display data.
Lesson 14-8: Appropriate Use of Statistical Measures	For related content, please see: **6.4.1.2** Determine the probability of an event using the ratio between the size of the event and the size of the sample space; represent probabilities as percents, fractions and decimals between 0 and 1 inclusive. Understand that probabilities measure likelihood. **5.4.1.2** Create and analyze double-bar graphs and line graphs by applying understanding of whole numbers, fractions and decimals. Know how to create spreadsheet tables and graphs to display data.

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(Continued) Lesson 14-8: Appropriate Use of Statistical Measures	**4.4.1.1** Use tables, bar graphs, timelines and Venn diagrams to display data sets. The data may include fractions or decimals. Understand that spreadsheet tables and graphs can be used to display data.
Lesson 14-9: Summarizing Data Distributions	**5.4.1.2** Create and analyze double-bar graphs and line graphs by applying understanding of whole numbers, fractions and decimals. Know how to create spreadsheet tables and graphs to display data. **4.4.1.1** Use tables, bar graphs, timelines and Venn diagrams to display data sets. The data may include fractions or decimals. Understand that spreadsheet tables and graphs can be used to display data.
Lesson 14-10: Problem Solving: Try, Check, and Revise	**5.4.1.1** Know and use the definitions of the mean, median and range of a set of data. Know how to use a spreadsheet to find the mean, median and range of a data set. Understand that the mean is a "leveling out" of data.