# Unit 1

Curriculum Map

# Algebraic Expressions and Integers

* 1. Place Value
  2. Variables and Expressions 1-3 The Order of Operations

1-4 Writing and Evaluating Expressions 1-5 Integers and Absolute Value

* 1. Adding Integers
  2. Subtracting Integers
  3. Problem Solving: Rounding and Estimating 1-9 Inductive Reasoning
  4. Patterns
  5. Multiplying and Dividing Integers 1-12 The Coordinate Plane

# Solving One-Step Equations and Inequalities

* 1. Properties of Numbers
  2. The Distributive Property
  3. Simplifying Variable Expressions 2-4 Variables and Equations

2-5 Solving Equations by Adding or Subtracting 2-6 Solving Equations by Multiplying or Dividing 2-7 Guess, Check, and Revise

* 1. Inequalities and Their Graphs
  2. Solving One-Step Inequalities by Adding or Subtracting 2-10 Solving One-Step Inequalities by Multiplying or Dividing

# Unit 3

**Decimals and Equations**

* 1. Rounding and Estimating
  2. Estimating Decimal Products and Quotients 3-3 Mean, Median, and Mode
  3. Using Formulas
  4. Solving Equations by Adding or Subtracting Decimals 3-6 Solving Equations by Multiplying or Dividing Decimals 3-7 Using the Metric System

# Factors, Fractions, And Exponents

4-1 Divisibility and Factors 4-2 Exponents

4-3 Prime Factorization and Greatest Common Factor 4-4 Simplifying Fractions

* 1. Rational Numbers
  2. Irrational Numbers
  3. Exponents and Multiplication 4-8 Exponents and Division
  4. Scientific Notation
  5. Cube Roots

# Unit 5

**Operations with Fractions**

5-1 Comparing and Ordering Rational Numbers 5-2 Fractions and Decimals

5-3 Adding and Subtracting Fractions 5-4 Multiplying and Dividing Fractions

* 1. Using Customary Units of Measurements
  2. Solving Equations by Adding or Subtracting Fractions 5-7 Solving Equations by Multiplying Fractions

5-8 Powers of Products and Quotients

# Unit 6

**Ratios, Proportions, and Percentages**

6-1 Ratios and Unit Rates 6-2 Proportions

6-3 Similar Figures and Scale Drawings 6-4 Probability

6-5 Fractions, Decimals, and Percentages 6-6 Proportions and Percentages

6-7 Percentages and Equations 6-8 Percent of Change

6-9 Markup and Discount 6-10 Tables

# Unit 7

**Solving Equations and Inequalities** 7-1 Solving Two-Step Equations 7-2 Solving Multi-Step Equations

7-3 Multi-Step Equations with Fractions and Decimals 7-4 Write an Equation

7-5 Solving Equations with Variables on Both Sides 7-6 Solving Two-Step Inequalities

* 1. Transforming Formulas
  2. Simple and Compound Interest

# Unit 8

**Linear Functions and Graphing**

* 1. Relations and Functions
  2. Equations with Two Variables 8-3 Slope and y-intercept

8-4 Writing Rules for Linear Functions 8-5 Scatter Plots

* 1. Solving Systems of Linear Equations by Graphing
  2. Solving Systems of Linear Equations by Substitution 8-8 Graphing Linear Inequalities

# Unit 9

**Spatial Thinking**

9-1 Introduction to Geometry: Points, Lines, and Planes 9-2 Angle Relationships and Parallel Lines

9-3 Classifying Polygons 9-4 Draw a Diagram

* 1. Congruence
  2. Circles
  3. Constructions
  4. Translations
  5. Symmetry and Rotations
  6. Rotations

# Unit 10

**Area and Volume**

* 1. Area of Parallelograms
  2. Area of Triangles and Trapezoids 10-3 Area of Circles
  3. Space Figures
  4. Surface Area of Prisms and Cylinders
  5. Surface Area of Pyramids, Cones, and Spheres 10-7 Volumes of Prisms and Cylinders

10-8 Volume of Pyramids, Cones, and Spheres

# Unit 11

**Right Triangles in Algebra**

11-1 Square Roots and Irrational Numbers 11-2 The Pythagorean Theorem

11-3 Distance and Midpoint Formulas 11-4 Write a Proportion

* 1. Special Right Triangles
  2. Sine, Cosine, and Tangent Ratios 11-7 Angles of Elevation and Depression

# Unit 12

**Data Analysis and Probability**

12-1 Frequency Tables, Line Plots, and Histograms 12-2 Box-and-Whisker Plots

* 1. Stem and Leaf Plots
  2. Counting Outcomes and Theoretical Probability 12-5 Independent and Dependent Events

12-6 Permutations and Combinations 12-7 Experimental Probability

12-8 Random Samples and Surveys

# Unit 13

**Nonlinear Functions and Polynomials**

* 1. Patterns and Sequences
  2. Graphing Nonlinear Functions 13-3 Exponential Growth and Decay 13-4 Polynomials
  3. Adding and Subtracting Polynomials
  4. Multiplying a Polynomial by a Monomial 13-7 Multiplying Binomials

13-8 Using Multiple Strategies