All Things Algebra®   MATH 6 CURRICULUM

Unit 1: Whole Numbers

- Place Value Review
- Whole Number Operations
- Divisibility Rules
- Powers and Exponents; Powers of 10
- Perfect Squares
- Order of Operations
- Prime Factorization
- Great Common Factor
- Least Common Multiple

Unit 2: Integers

- Representing & Writing Integers
- Comparing and Ordering Integers
- Absolute Value
- Adding Integers
- Subtracting Integers
- Multiplying Integers
- Dividing Integers
- Order of Operations with Integers
- The Coordinate Plane: Identify & Label Axes, Origin, Quadrants.
- Graph Ordered Pairs with Integral Coordinates

Unit 3: Rational Numbers

- Decimals & Place Value
- Adding & Subtracting Decimals
- Multiplying Decimals
- Dividing Decimals
- Writing Fractions
- Mixed vs. Improper Forms
- Adding & Subtracting Fractions
- Multiplying Fractions
- Dividing Fractions
- Fractions, Decimals, and Percents
- Percent of a Number
- Negative Rational Numbers

Unit 4: Algebraic Expressions

- Algebraic Expressions (Variables, Coefficients, Constants)
- Evaluating Expressions
- Writing Expressions
- Equivalent Expressions
- Properties: Commutative, Associative, Identity, Inverse
- Distributive Property
- Combining Like Terms
- Simplifying Expressions (Distribute and Combine)
- Factoring Expressions

Unit 5: Equations & Inequalities	**Unit 6:** Ratio & Proportion
• Writing Equations in One Variable • Properties of Equality • Solving Equations with Addition or Subtraction (Whole Numbers, Rational Numbers, & Integers) • Solving Equations with Multiplication or Division (Whole Numbers, Rational Numbers, & Integers) • Writing & Graphing Inequalities • Identifying Solutions to an Inequality • Properties of Inequality • Solving Inequalities with Addition or Subtraction (Whole Numbers & Integers) • Solving Inequalities with Multiplication or Division (Whole Numbers & Integers)	• Ratios • Equivalent Ratios • Unit Rates • Determine if a Proportional Relationship Exists (Given Verbal Descriptions, Tables, Graphs) • Write a Proportional Relationships (Given Verbal Descriptions, Tables, Graph, Unit Rate) • Graph Proportional Relationships • Represent Ratios as Fractions, Decimals, and Percents • Comparing & Order Fractions, Decimals, and Percents
Unit 7: Area & Volume	**Unit 8:** Statistics
• Identify Regular Polygons • Area & Perimeter of Rectangles, Triangles, Parallelograms, and Trapezoids • Congruent Polygons • Lines of Symmetry • Polygons in the Coordinate Plane • Area of Composite Figures • Area of Circles • Circumference of Circles • Three-Dimensional Figures • Surface Area of Prisms (with nets) • Surface Area of Pyramids (with nets) • Volume of Rectangular Prisms	• Measures of Center: Mean, Median, and Mode • Effects on the Measure of Center (Outliers, adding, or removing data values) • Range, Quartiles, Interquartile Range • Mean Absolute Deviation • Stem-and-Leaf Plots • Histograms • Shapes of Distributions • Box-and-Whisker Plots • Circle Graphs