6th Grade Math Curriculum

Chapter 1: Number Sense, Patterns, and Algebraic Thinking

- Describing patterns
- Variables and expressions
- Powers and exponents
- Order of operations
- Equations and mental math
- Perimeter and area
- A problem solving plan

Chapter 2: Decimal Operations

- Adding, subtracting, multiplying and dividing decimals
- Scientific Notation
- Measuring and converting in Metric units

Chapter 3: Data and Statistics

- Mean, median, mode
- Bar and line graphs
- Stem-and-leaf and box-and-whisker plots
- Histograms

Chapter 4: Number Patterns and Fractions

- Prime factorization
- GCF and LCM
- Equivalent fractions
- Comparing and ordering fractions
- Mixed numbers and improper fractions
- Fractions and decimals

Chapter 5: Fraction Operations

- Adding, subtracting, multiplying, and dividing fractions and mixed numbers
- Measuring and converting in customary units

Chapter 6: Integers

- Comparing and ordering integers
- Adding, subtracting, multiplying, and dividing integers
- Rational numbers
- The distributive property
- The coordinate plane

Chapter 7: Equations, Inequalities, and Functions

- Writing and simplifying expressions and equations
- Solving equations involving addition, subtraction, multiplication, and division.

- Solving two step equation and inequalities
- Graphing functions and equations

Chapter 8: Ratios and Proportions

- Ratios, rates, and slope
- Writing and solving proportions
- Solving proportions using cross products
- Scale drawings and models

Chapter 9: Percents

- Percents and fractions, percents and proportions, percents and decimals
- The percent equation
- Circle graphs
- Percent increase or decrease
- Discounts, markups, sales tax, tips, simple interest

Chapter 10: Geometric Figures

- Angles
- Special pairs of angles
- Triangles
- Polygons, similar and congruent polygons
- Proportions with similar polygons
- Transformations and symmetry

Chapter 11: Measurement and Area

- Square roots
- Pythagorean theorem
- Areas of parallelograms, triangles, and trapezoids
- Circumference and area of circle

Chapter 12: Surface Area and Volume

- Classifying and sketching solids
- Surface area of rectangular prisms and cylinders
- Volume of rectangular prisms and cylinders

Chapter 13: Probability

- Tree diagrams
- The counting principle
- Permutations and combinations
- Disjoint events
- Independent and dependent events