Math 6 Curriculum Guide

Unit 1: Whole Numbers/Decimals
- Base Ten Place-Value System/Decimal
- Exponents (Positive and Negative)
- Order of Operations with Whole Numbers/Decimals
- Expanded Notation (including decimals)
- Scientific Notation
- Properties of Addition and Multiplication
- Four Operations with Whole Numbers and Decimals
- Rounding Whole Numbers and Decimals
- Problem Solving with Whole Numbers and Decimals

Unit 2: Number Theory
- Divisibility
- Prime Factorization/Prime & Composite
- LCM & GCF

Unit 3: Fractions and Mixed Numbers
- Equivalent Fractions
- Simplest Form
- Fraction and Decimal Equivalents
- Comparing and Ordering Fractions
- Convert Mixed Numbers and Whole Numbers to Fractions
- Four Operations with Fractions
- Problem Solving with Fractions

Unit 4: Integers
- Introduction to Integers, Comparing and Ordering
- Absolute Value
- Four Operations with Integers

Unit 5: Algebra
- Variables and Expressions
- Translate Between Words and Math
- The Distributive Property
- Combining Like Terms
- Solving One-Step Equations with Whole Numbers/Fractions/Decimals
- Problem Solving-Writing Equations
- Solving Two-Step Equations
- Solving Multi-Step Equations
- Solving and Graphing Inequalities

Unit 6: Geometry:
- Coordinate Geometry
- Classify Triangles and Quadrilaterals
- Identify Polygons
- Perimeter
- Area: Rectangle, Triangle, Parallelogram, Square, Trapezoid
- Surface Area (Nets) and Volume of Rectangular and Triangular Prisms
- Problem Solving with Perimeter, Area and Volume

Unit 7: Ratio, Proportion and Percent:
- Ratio, rate and unit rate
- Proportions (cross products rule)
- Percent, Decimals, and Fractions
- Finding the Percent of a Number, Finding the Percent when the Part and Whole are Known, and Finding the Whole
- Tax, Tips and Discounts
- Similar Figures Problem Solving
- Indirect Measurement Problem Solving
- Customary Measurement System

Unit 8: Statistics and Probability:
- Introduction to Probability
- Theoretical and Experimental Probability of Simple Events
- Making Predictions
- Line and Bar Graphs
- Populations and Samples
- Mean, Median, Mode, Range and Outliers
- Frequency Tables and Histograms
- Dot Plot
- Box and Whisker Plot