

# 8<sup>th</sup> Grade

## Mathematics

### 1<sup>st</sup> 9 Weeks

- Rational Numbers
- Powers and Exponents
- Negative Exponents
- Scientific Notation
- Roots
- Roots of Non-Perfect Squares
- The Real Number System
- Compare and Order Real Numbers
- Properties of Similar Polygons
- Angle-Angle Similarity
- Dilations
- Changes in Dimensions

### 2<sup>nd</sup> 9 Weeks

- Constant Rate of Change
- Slope
- Equations in  $y=mx$  Form
- Direct Variation
- Proportional and Nonproportional Relationships
- Graph a Line Using Intercepts
- Write Linear Equations
- Relations and Functions
- Linear Functions
- Proportional and Nonproportional Functions
- Write Equations of Functions
- Parallel Lines and Angle Relationships
- Exterior Angles
- Right Triangle Relationships
- Pythagorean Theorem
- Distance on the Coordinate Plane

### 3<sup>rd</sup> 9 Weeks

- Solve and Write Two-Step Equations
- Model and Solve Equations with Variables on Each Side
- Solve Multistep Equations
- Inequalities with Variables on Each Side
- Linear Equations
- Volume of Cylinders, Cones, and Spheres
- Surface Area of Prisms and Cylinders
- Transformations
- Rotational Symmetry
- Congruence

### 4<sup>th</sup> 9 Weeks

- Scatterplots
- Descriptive Statistics
- Mean Absolute Deviation
- Analyze Data Distributions
- Random Samples
- Financial Literacy:
  1. Loans and Interest Rates
  2. Savings and Investments
  3. Shopping: Payment Methods
  4. Financial Responsibility
  5. Saving for College