

**By the end of grade six, students should know and be able to:**

**Ratios and Proportional Relationships**

- Understand the concept of a ratio and unit rate
- Use ratio and rate reasoning to solve real-world and mathematical problems
- Find a percent of a quantity

**The Number System**

- Compute fluently with whole numbers, fractions, and decimals.
- Find common factors and multiples.
- Understand what an integer is.
- Understand what a rational number is and be able to extend that understanding to number lines and quadrants on a coordinate plane.
- Compare and order rational numbers.
- Understand the absolute value of rational numbers.
- Solve real world and mathematical problems by graphing points in the coordinate plane

**Expressions and Equations**

- Read, write, and evaluate algebraic expressions using variables, including those with exponents
- Identify parts of an expression
- Identify equivalent expressions
- Write and solve equations and inequalities to represent real-world and mathematical expressions.
- Solve one-variable equations
- Represent and analyze quantitative relationships between independent and dependent variables (How do you put this in parent friendly language!)

**Geometry**

- Solve real-world and mathematical problems involving area, surface area, and volume.
- Find area of right triangles, special quadrilaterals and polygons by composing and decomposing into triangles and other shapes .
- Find the volume of a right rectangular prism with fractional edges
- Draw polygons in coordinate plane

**Statistics and Probability**

- Develop an understanding of statistical variability
- Display numerical data in plots on a number line, including dot plots, histograms, and box plots (or display and summarize data??)
- Summarize and describe distributions