## **Eighth Grade Math**

The eighth grade math course is aligned to the Common Core Standards. Math skills taught include real numbers, powers and exponents, radicals, solving multi-step equations, graphing linear equations, identifying linear and nonlinear functions, solving systems of equations, linear and nonlinear functions, polygons and their properties, Pythagorean theorem, transformations, congruence, similarity, volume, surface area, scatter plots and data analysis.

## Semester 1

The Number System (8.NS)

 Know that there are numbers that are not rational and approximate them as rational numbers.

Expressions and Equations (8.EE)

- Work with radicals and integer exponents.
- Understand the connections between proportional relationships, lines, and linear equations.

## Semester 2

Functions (8.F)

• Define, evaluate, and compare functions. - Use functions to model relationships between quantities

Systems of linear equations (8.EE)

Analyze and solve linear equations and pairs of simultaneous linear equations.

Geometry (8.G)

- Understand congruence and similarity using physical models, transparencies, or geometry software.
- Understand and apply the Pythagorean Theorem.
- Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.

Statistics and Probability (8.SP)

Investigate patterns of association in bivariate data.