Geometry Pacing Guide

Geometry emphasizes similarity, right triangle trigonometry, congruence, and modeling geometry concepts in real life situations. Students build upon previous knowledge of similarity, congruence, and triangles to prove theorems and reason mathematically. This course also introduces students of geometric constructions and circles. Students show a progression of mastery and understanding of the use and application of surface area and volume.

Quarter 1
Congruence
- Prove geometric theorems.
- Make geometric constructions.

Expressing Geometric Properties with Equations
- Use coordinates to prove simple geometric theorems algebraically.

Quarter 2
Similarity, Right Triangles, and Trigonometry
- Understand similarity in terms of similarity transformations.
- Prove theorems involving similarity.

Expressing Geometric Properties with Equations
- Use coordinates to prove simple geometric theorems algebraically.

Quarter 3
Congruence
- Understand congruence in terms of rigid motions.
- Experiment with transformations in the plane.

Similarity, Right Triangles, and Trigonometry
- Define trigonometric ratios and solve problems involving triangles.

Circles
- Understand and apply theorems about circles.
- Find areas of sectors of circles.

Expressing Geometric Properties with Equations
- Translate between the geometric description and the equation for a circle.

Geometric Measurement and Dimension
- Explain volume and surface area formulas and use them to solve problems.

Quarter 4
Modeling with Geometry
- Apply geometric concepts in modeling situations.

*The advanced section of this course will go further in depth and further apply each of these topics to real life situations. The advanced sections will also complete more rigorous assignments, as well as a higher number of assignments.