Geometry Course Overview

Fall Semester

Reasoning and Proof	Basics of Geometry		Parallel and Perpendicular Lines		Transformations
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In this unit, students will learn to apply logical vocabulary to categorize statements and explain relationships between those statements.	In this unit, students will learn relevant vocabulary to build the framework of geometrical thinking. Students will apply geometric relationships to solve problems.		In this unit, students will analyze relationships between lines and the angles between them and create mathematical representations of those relationships.		In this unit, students will apply transformation rules to move figures about a coordinate plane. Students will identify transformation rules given graphical representations.
Similarity		Congruent Triangles		Relationships within Triangles	
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In this unit, students will learn to analyze geometric shapes to identify proportionality. Use and apply proportions to solve for unknown measurements.		In this unit, students will investigate patterns to make conjectures about geometric relationships. Students will classify and compare triangles for congruence.		In this unit, students will explore triangle relationships to describe patterns and solve problems.	

Spring Semester

Quadrilaterals and Other Polygons	Special Right Triangles	Trigonometry	Circles
	COS	COS	- r A=πr ²
In this unit students will learn to identify geometric shapes and use their properties to solve problems.	In this unit students will build on their knowledge of Pythagorean Theorem. The major topic of this unit will be special relationships in triangles to solve for missing lengths.	In this unit students will learn and apply trigonometric ratios. Students will use ratios to solve for angles and sides.	In this unit students will recall circle vocabulary. Students will identify key features of circles and related lines.
Circumference and Area	Surface Area and Volume	Probability	Circles, Continued
	A B D D	$P(A) = \frac{n(A)}{n(s)}$	(-2πι
In this unit students will learn to apply formulas to solve for distance and space.	In this unit, students analyze 3D figures and their properties in order to recognize and explain rules or formulas. Students will apply formulas to solve for missing values.	In this unit students will build on their knowledge of theoretical probability, and apply formulas to calculate proportions of desired outcomes.	In this unit students will recall circle vocabulary and use their properties to solve for different angle values in circles. The major topic of this unit will be using tangents and secants to solve for various lengths inside and outside of circles.