

*Geometry Power Standards  
And Kid Friendly Objectives*

Unit 1 (G4B): I will solve problems involving angle and segment relationships.

Objective 1: I will describe and identify geometric figures using appropriate labels.

Objective 2: I will find length and angle measures of geometric figures.

Objective 3: I will solve equations involving angle and segment measures by applying equality and congruence properties.

Unit 2 (A1B, G1A, G4B): I will use inductive and deductive reasoning to establish the validity of geometric conjectures, proved theorems, and critique arguments made by others.

Objective 1: I will use inductive and deductive reasoning.

Objective 2: I will use geometric relationships in diagrams.

Objective 3: I will write two-column proofs of algebraic and geometric relationships.

Unit 3 (A4A, G2A, M2B): I will solve problems related to angle measure and equations of parallel and perpendicular lines.

Objective 1: I will use properties of parallel and perpendicular lines.

Objective 2: I will prove relationships using angle measures.

Objective 3: I will make connections to lines in algebra.

Unit 4 (G4B, M2B): I will apply properties, postulates, and theorems to classify triangles and to prove pairs of triangles congruent.

Objective 1: I will classify triangles and determine the measures of angles and sides.

Objective 2: I will apply properties of congruent triangles.

Objective 3: I will prove triangles are congruent.

Unit 5 (G4B, M2B): I will apply the properties of segments of triangles to inequalities in triangles.

Objective 1: I will use appropriate properties of special segments.

Objective 2: I will use triangle inequalities to determine what triangles are possible.

Objective 3: I will extend methods for justifying and proving relationships in triangles.

Unit 6 (N3E, G4B, M3E): I will use proportions to solve problems involving similar triangles.

Objective 1: I will use ratios and proportions to solve geometry problems.

Objective 2: I will show that triangles are similar.

Objective 3: I will use indirect measurement and similarity.

Unit 7 (G4B, M2B): I will use the Pythagorean theorem and trigonometric ratios to solve problems involving right triangles.

Objective 1: I will use the Pythagorean theorem and its converse.

Objective 2: I will use special relationships in right triangles.

Objective 3: I will use trigonometric ratios to solve right triangles.

Unit 8 (G4B, M2B): I will solve problems involving parallelograms, special quadrilaterals, and other polygons.

Objective 1: I will apply properties of polygons.

Objective 2: I will apply properties of parallelograms.

Objective 3: I will apply properties of special quadrilaterals.

Unit 9 (G3A, G3C, G4B): I will represent translations, reflections, rotations, and dilations of figures in the coordinate plane.

Objective 1: I will identify and describe transformations and isometries.

Objective 2: I will perform transformations.

Objective 3: I will identify and describe types of symmetries.

Unit 10 (G4B): I will solve problems involving arc measure, angle measure, and segment lengths, as related to circles.

Objective 1: I will explore the parts, equations, and graphs of circles.

Objective 2: I will determine arc lengths and angle measures of circles.

Objective 3: I will determine lengths of tangents and segments of circles.

Unit 11 (G4B, M2B): I will find measures of length and area in polygons and circles.

Objective 1: I will apply area formulas for polygons.

Objective 2: I will relate length, perimeter, and area ratios in similar polygons.

Objective 3: I will apply area and circumference formulas for circles and parts of circles.

Unit 12 (G4A, G4B, M2B, M2C): I will determine the surface area and volume of 3-dimensional solids.

Objective 1: I will explore solids and their properties, including similarities.

Objective 2: I will determine the surface area and volume of polyhedra.

Objective 3: I will determine the surface area and volume of non-polyhedra.

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