

Fall Semester Geometry Pacing Guide

First 4.5 Weeks		Second 4.5 Weeks		Third 4.5 Weeks		Fourth 4.5 Weeks	
Standard	Days	Standard	Days	Standards	Days	Standards	Days
<p>Build Relationships & Establish Routines Number sense routines *this is to continue at least 3 times a week throughout the rest of the course* Spiral Reviews will be done daily throughout the course</p>	3	<p>G.4b,c,d&g - Perpendicular/Parallel Lines Construct perpendicular bisector, perpendicular from a point on a line and off a line Construct parallel line from a point not on the line</p> <p>G.4b) the perpendicular bisector of a line segment; c) a perpendicular to a given line from a point not on the line; d) a perpendicular to a given line at a given point on the line; g) a line parallel to a given line through a point not on the line</p>	1	<p>G.10 - Polygons/Tessellations Angles/Sides of Polygons Determine missing angle measurements in tessellations</p> <p>G.10 The student will solve problems, including practical problems, involving angles of convex polygons. This will include determining the a) sum of the interior and/or exterior angles; b) measure of an interior and/or exterior angle; and c) number of sides of a regular polygon.</p>	4	<p>G.13 - 3D Solids Surface Area/Volume of cylinders, prisms, pyramids, cones, hemispheres, and spheres Lateral Area of circular cylinders, prisms, and regular pyramids</p> <p>G.13 The student will use surface area and volume of three-dimensional objects to solve practical problems.</p>	5
<p>G.4a,e,&f - Segment/Angle Constructions Construct congruent line segments/angles Construct angle bisector</p> <p>G.4 The student will construct and justify the constructions of a) a line segment congruent to a given line segment e) the bisector of a given angle; f) an angle congruent to a given angle</p>	1	<p>G.6 - Congruent Triangles Determine Congruent triangles Prove Congruent using 5 Postulates, 2-column proofs, and paragraph proofs</p> <p>G.6 The student, given information in the form of a figure or statement, will prove two triangles are congruent.</p> <p>G.3d - Transformations Isometric transformations (translation, reflection, rotation) to create congruent figures</p> <p>d) determining whether a figure has been translated, reflected, rotated, or dilated, using coordinate methods.</p>	5	<p>G.9 - Quadrilaterals Properties of quadrilaterals to include: parallelograms, rectangles, rhombus, squares, trapezoids, and isosceles trapezoids Prove specific quadrilaterals</p> <p>G.9 The student will verify and use properties of quadrilaterals to solve problems, including practical problems.</p>	3	<p>G.14 - Similar Solids Comparing ratios of lengths, perimeters, areas, and volumes Changes in one or more dimensions</p> <p>G.14 The student will apply the concepts of similarity to two- or three-dimensional geometric figures. This will include a) comparing ratios between lengths, perimeters, areas, and volumes of similar figures; b) determining how changes in one or more dimensions of a figure affect area and/or volume of the figure; c) determining how changes in area and/or volume of a figure affect one or more dimensions of the figure; and d) solving problems, including practical problems, about similar geometric figures.</p>	4
<p>G.3a,b&c - Formulas/Symmetry Line/Point symmetry Distance/Midpoint (including missing endpoint) /Slope formulas Determine parallel/perpendicular based on slope</p> <p>G.3 The student will solve problems involving symmetry and transformation. This will include a) investigating and using formulas for determining distance, midpoint, and slope; b) applying slope to verify and determine whether lines are parallel or perpendicular; c) investigating symmetry and determining whether a figure is symmetric with respect to a line or a point</p>	6	<p>G.7 - Similar Triangles Determine Similar using proportions Prove Similar using 3 Postulates, 2-column proofs, and paragraph proofs</p> <p>G.7 The student, given information in the form of a figure or statement, will prove two triangles are similar.</p>	5	<p>G.12 - Equation of Circles</p> <p>G.12 The student will solve problems involving equations of circles.</p>	3	<p>G.1 - Logic Forms of conditional statements Symbolic form of logic Laws of Logic (include counterexamples)</p> <p>G.1 The student will use deductive reasoning to construct and judge the validity of a logical argument consisting of a set of premises and a conclusion. This will include a) identifying the converse, inverse, and contrapositive of a conditional statement; b) translating a short verbal argument into symbolic form; and c) determining the validity of a logical argument.</p>	5
<p>G.2 - Parallel Lines Angle Pairs to prove Parallel lines (numerically and algebraically) **New: same-side exterior**</p> <p>G.2 The student will use the relationships between angles formed by two lines intersected by a transversal to a) prove two or more lines are parallel; and b) solve problems, including practical problems, involving angles formed when parallel lines are intersected by a transversal.</p>	5	<p>G.8 - Right Triangles Forming right triangles using Pythagorean Theorem & its converse Trigonometric Ratios Special Right Triangles</p> <p>G.8 The student will solve problems, including practical problems, involving right triangles. This will include applying a) the Pythagorean Theorem and its converse; b) properties of special right triangles; and c) trigonometric ratios.</p>	8	<p>G.11 - Circles Arcs/Angles of circles Segments in circles Arc length/Sector Area</p> <p>G.11 The student will solve problems, including practical problems, by applying properties of circles. This will include determining a) angle measures formed by intersecting chords, secants, and/or tangents; b) lengths of segments formed by intersecting chords, secants, and/or tangents; c) arc length; and d) area of a sector</p>	10	<p>Review for SOL</p>	5

G.5 - Triangles (Angles/Sides) Forming triangle, Range of third side of triangle, Ordering by sides or angles G.5 The student, given information concerning the lengths of sides and/or measures of angles in triangles, will solve problems, including practical problems. This will include a) ordering the sides by length, given angle measures; b) ordering the angles by degree measure, given side lengths; c) determining whether a triangle exists; and d) determining the range in which the length of the third side must lie	4		G.4h - Inscribed Constructions Construct an equilateral triangle, square, and regular hexagon inscribed in a circle	1	Prepare for Algebra II	6
Standards covered = 4	19	Standards covered = 4	Standards covered = 4 & part of G.4	21	Standards covered = All	25
					Total	83
					Classroom Assessments included in the days	
					days for benchmark review and tests	6
					Total for the year	89