Geometry
MATH PACING GUIDE
Lunenburg County Public Schools
2018-2019

First Nine Weeks

SOL	TOPIC	DAYS
	Pretest	2
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	7
	Assessment on G.1	1
G.3 a,b	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	8
	Assessment on G.3 a,b	2
G.3 c,d	The student will solve problems involving symmetry and transformation. This will include c) investigating symmetry and determining whether a figure is symmetric with respect to a line or a point; and d) determining whether a figure has been translated, reflected, rotated, or dilated, using coordinate methods.	6

	Assessment on G.3 c,d	1
Review	Review of geometrical terms and applications	9
	Assessment of basic geometrical terms	1
G.2	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.	8

Second Nine Weeks

SOL	TOPIC	DAYS
G.2 con't	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.	6
	Assessment on G.2	2
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.	7
	Assessment on G.10	1
Review of triangles, 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.	11
	Assessment on G.5	1
G.8	The student will solve problems, including practical problems, involving right triangles. This will include applying	15

	a) the Pythagorean Theorem and its converse b) properties of special right triangles; and c) trigonometric ratios.	
	Assessment on G.8	2

Third Nine Weeks

SOL	TOPIC	DAYS
G.6	The student, given information in the form of a figure or statement, will prove two triangles are congruent.	9
G.7	The student, given information in the form of a figure or statement, will prove two triangles are similar.	9
	Assessment on G.6 & 7	2
G.9	The student will verify and use properties of quadrilaterals to solve problems, including practical problems.	9
	Assessment on G.9	2
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.	12
G.12	The student will solve problems involving equations of circles	2

Fourth Nine Weeks

SOL	TOPIC	DAYS
G.12	The student will solve problems involving equations of circles	3
	Assessment on G.11 & G.12	2
G.4	The student will construct and justify the constructions of a) a line segment congruent to a given line segment; b) 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; e) the bisector of a given angle, f) an angle congruent to a given angle; g) a line parallel to a given line through a point not on the line; and h) an equilateral triangle, a square, and a regular hexagon inscribed in a circle.	6
	Assessment on G.4	1
G.13	The student will use surface area and volume of three-dimensional objects to solve practical problems.	8
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	5

	problems, about similar geometric figures.	
	Assessment on G.13 & G.14	2
ALL	SOL Review, Exam, Post-test	18