

Math Instructional Alignment/Pacing Guide for Kindergarten through Geometry

Grade Level: Geometry

Estimate EVERY day in EVERY way

1 st 9 Weeks – A	Student Learning Expectations	Resources/ Strategies	Vocabulary	Time Frame
	LG.1.G.2 Represent points, lines, and planes pictorially with proper identification, as well as basic concepts derived from these undefined terms, such as segments, rays, and angles.	Chapter 10	Point Line Plane Segment Ray Angle	2 days
	T.2.G.4 Apply the Pythagorean Theorem and its converse in solving practical problems.	Chapter 10	Pythagorean Theorem	2 days
	CGT.5.G.1 Use coordinate geometry to find the distance between two points, the midpoint of a segment, and the slopes of parallel, perpendicular, horizontal, and vertical lines.	Chapter 10	Midpoint Slope Parallel line Perpendicular line Horizontal line Vertical line	3 days
	LG.1.G.4 Apply, with and without appropriate technology, definitions, theorems, properties, and postulates related to such topics as complementary, supplementary, vertical angles, linear pairs, and angles formed by perpendicular lines.	Chapter 10	Theorem Property Postulate Complementary angle Supplementary angle Vertical angle Linear pair	4 days
	LG.1G.3 Describe relationships derived from geometric figures or figural patterns.	Chapter 2	Geometric figure	3 days

	<p>LG.1G.1 Define, compare, and contrast inductive reasoning and deductive reasoning for making predictions based on real world situations.</p> <ul style="list-style-type: none"> • Venn diagrams • Matrix logic • Conditional statements (statement, inverse, converse, and contrapositive) 	Chapter 2	<p>Inductive reasoning Deductive reasoning Matrix logic Inverse Converse Contrapositive</p>	
	LG.1.G.6 Give justification for conclusions reached by deductive reasoning.	Chapter 2		
	LANDMARK ASSESSMENT 1 (five weeks)	Review-test-go over test		3 days

1 st 9 Weeks - B	<p>LG.1G.5 Explore, with and without appropriate technology, the relationship between angles formed by two lines cut by a transversal to justify when lines are parallel.</p>	Chapter 3	Transversal	
	<p>M.3.G.5 Use properties of parallel lines and proportional reasoning to find the lengths of segments.</p>	Chapter 3	Proportional reasoning	
	<p>CGT.5.G.2 Write equations of lines in slope-intercept form and use slope to determine parallel and perpendicular lines.</p>	Chapter 3	Slope-intercept	
	<p>T.2.G.1 Apply congruence (SSS...) and similarity (AA...) correspondence and properties of figures to find missing parts of geometric figures and provide logical justification.</p>	Chapter 4	Congruence Similarity	
	LANDMARK ASSESSMENT 2	Review-test-go over test		3 days

2 nd 9 Weeks – A	Student Learning Expectations	Resources/ Strategies	Vocabulary	Time Frame
	T.2.G.2 Investigate the measures of segments to determine the existence of triangles (triangle inequality theorem).	Chapter 5	Triangle inequality theorem	
	T.2.G.3 Identify and use the special segments of triangles (altitude, median, angle bisector, perpendicular bisector, and mid-segment) to solve problems.	Chapter 5	Altitude Median Angle bisector Perpendicular bisector Mid-segment	
	R.4.G.1 Explore and verify the properties of quadrilaterals.	Chapter 6	Quadrilateral	
	CGT.5.G.3 Determine, given a set of points, the type of figure based on its properties (parallelogram, isosceles triangle, trapezoid).	Chapter 6	Parallelogram Isosceles triangle Trapezoid	
	R.4.G.2 Solve problems using properties of polygons: <ul style="list-style-type: none"> • Sum of the measures of the interior angles of a polygon • Interior and exterior angle measure of a regular polygon or irregular polygon • Number of sides or angles of a polygon 	Chapter 6	Polygon Interior angle Exterior angle Regular polygon Irregular polygon	
	LANDMARK ASSESSMENT 3	Review-test-go over test		3 days

2 nd 9 Weeks - B	M.3.G.4 Use (given similar geometric objects) proportional reasoning to solve practical problems (include scale drawings).	Chapter 7	Scale drawing	
	T.2.G.1 Apply congruence (SSS...) and similarity (AA..) correspondences and properties of figures to find missing parts of geometric figures and provide logical justification.	Chapter 7	Congruence Similarity	
	T.2.G.5 Use the special right triangle relationships (30°60°90° and 45°45°90°) to solve problems.	Chapter 8	Special right triangle	
	T.2.G.6 Use trigonometric ratios (sine, cosine, tangent) to determine lengths of sides and measures of angles in right triangles including angles of elevation and angles of depression.	Chapter 8	Sine Cosine Tangent Angle of elevation Angle of depression	
	T.2.G.4 Apply the Pythagorean Theorem and its converse in solving practical problems.	Chapter 8	Pythagorean theorem Converse	
	LANDMARK ASSESSMENT 4	Review-test-go over test		3 days

3 rd 9 Weeks – A	Student Learning Expectations	Resources/ Strategies	Vocabulary	Time Frame
	R.4.G.5 Investigate and use the properties of angles (central and inscribed) arcs, chords, tangents, and secants to solve problems involving circles.	Chapter 9	Central Inscribed Arc Chord Tangent Secant	
	R.4.G.6 Solve problems using inscribed and circumscribed figures.	Chapter 9	Inscribed figure Circumscribed figure	
	CGT.5.G.4 Write, in standard form, the equation of a circle given a graph on a coordinate plane or the center and radius of a circle.	Chapter 9	Coordinate plane Radius of a circle	
	R.4.G.2 Solve problems using properties of polygons <ul style="list-style-type: none"> • Sum of the measures of the interior angles of a polygon • Interior and exterior angle measure of a regular polygon or irregular polygon • Number of sides or angles of a polygon 	Chapter 10		
	R.4.G.3 Identify and explain why figures tessellate.	Chapter 10	Tessellate	
	CGT.5.G.5 Draw and interpret the results of transformations and successive transformations on figures in the coordinate plane <ul style="list-style-type: none"> • Translations • Reflections • Rotations (90°, 180°, clockwise and counterclockwise about the origin) • Dilations (scale factor) 	Chapter 13 -5,6,7,8	Transformation Translation Reflection Rotation Dilation	
	LANDMARK ASSESSMENT 5	Review-test-go over test		3 days

3 rd 9 Weeks - B	M.3.G.2 Apply, using appropriate units, appropriate formulas (area, perimeter,...) to solve application problems involving polygons, prisms, pyramids, cones, cylinders, spheres, as well as composite figures, expressing solutions in both exact and approximate forms.	Chapter 10	Area Perimeter Prism Pyramid Cone Cylinder Sphere Composite figure	
	M.3.G.1 Calculate probabilities arising in geometric contexts (Ex. Find the probability of hitting a particular ring on a dartboard.)	Chapter 10	Probability	
	M.3.G.2 Apply, using appropriate units, appropriate formulas (...surface area, volume) to solve application problems involving polygons, prisms, cones, cylinders, spheres, as well as composite figures, expressing solutions in both exact and approximate forms.	Chapter 11	Surface area Volume	
	R.4.G.8 Draw, examine, and classify cross-sections of three-dimensional objects.	Chapter 11	Cross-section 3-dimensional object	
	R.4.G.7 Use orthographic drawings (top, front, side) and isometric drawings (corner) to represent three-dimensional objects.	Chapter 11	Orthographic drawing Isometric drawing	
	M.3.G.3 Relate changes in the measurement of one attribute of an object to changes in other attributes (Ex. How does changing the radius or height of a cylinder affect its surface area or volume?)	Chapter 11	Attribute	
	R.4.G.4 Identify the attributes of the five Platonic solids.	Chapter 11	Platonic solid	
	LANDMARK ASSESSMENT 6	Review-test-go over test		3 days

4 th 9 Weeks –	Student Learning Expectations	Resources/ Strategies	Vocabulary	Time Frame
Begin Algebra II SLE work	LEI.2.A11.1 Translate linear equations from one form (slope-intercept, point-slope, and standard) to another.		Slope-intercept Point-slope Standard form	
	LEI.2.A11.2 Develop, write, and graph, with and without appropriate technology, equations of lines in slope-intercept, point-slope, and standard forms given <ul style="list-style-type: none"> • A point and the slope • Two points • Real world data GCT.5.G.2 Write equations of lines in slope-intercept form and use slope to determine parallel and perpendicular lines.			
	LEI.2.A11.3 Develop, write, and graph (given the point and the slope, two points, or a point and a line) equations of <ul style="list-style-type: none"> • A parallel line • A perpendicular line • A perpendicular bisector of a segment CGT.5.G.1 Use coordinate geometry to find the distance between two points, the midpoint of a segment, and the slopes of parallel, perpendicular, horizontal, and vertical lines.			
	9 weeks test			