Geometry -B

Cycle	Unit	Unit Description	TEKS	Week #
Cycle 4: Jan 6 - Feb 13	Unit 7: Similarity	Students solve geometric problems involving similarity, proportionality, and dilation.	Ⓢ GEOM.8F Use conversions between measurement systems to solve problems in real-world situations.	Week 18 Friday
			Ⓢ GEOM.11A Use and extend similarity properties and transformations to explore and justify conjectures about geometric figures including identification of corresponding parts of similar figures.	Week 20: Friday
			Ⓢ GEOM.11B Apply ratios to solve problems involving similar figures.	Week 19 Friday
			Ⓡ GEOM.11C Develop, apply, and justify triangle similarity relationships, such as mean proportional within triangles, trigonometric ratios, Pythagorean triples, and 45-45-90 and 30-60-90 triangles, using a variety of methods.	WK 18
Cycle 4: Jan 6 - Feb 13	Unit 8: Pythagoras and Special Right Triangles	Students apply the Pythagorean theorem to various real-world situations and develop a pattern for special right triangles.	Ⓢ GEOM.1B Recognize the historical development of geometric systems and know mathematics is developed for a variety of purposes.	Review
			Ⓢ **GEOM.3B** Construct and justify statements about geometric figures including triangles, quadrilaterals, regular polygons, and circles, and their properties.	Review
			Ⓡ **GEOM.5D** Identify and apply patterns from right triangles to solve meaningful problems, including special right triangles (45-45-90 and 30-60-90) and triangles whose sides are Pythagorean triples.	Review
			Ⓡ **GEOM.8C** Derive, extend, and use the Pythagorean theorem to determine a missing side of a given right triangle and to solve real world problems.	Review
Cycle 4: Jan 6 - Feb 13	Unit 9: Right Triangles and Trigonometry	Students apply properties of triangles to the study of right-triangle trigonometry.	Ⓡ **GEOM.5D** Identify and apply patterns from right triangles to solve meaningful problems, including special right triangles (30º-60º-90º and 45º-45º-90º) and triangles whose sides are Pythagorean triples.	Week 19
			Ⓡ **GEOM.11C** Develop, apply, and justify triangle similarity relationships, such as mean proportional within triangles, trigonometric ratios, Pythagorean triples, and 30º-60º-90º and 45º-45º-90º, using a variety of methods.	Week 19

Cycle	Unit	Unit Description	TEKS	Week #
Cycle 4: Jan 6 - Feb 13	Unit 10: Measuring Lengths and Area	Students concretely and algebraically determine the perimeter and area of various geometric figures or portions of figures.	Ⓡ GEOM.8A Determine areas of regular polygons, circles, and composite figures using the area of triangles, squares, rectangles, parallelograms, and/or trapezoids.	P.O.W (WK20)
			Ⓢ GEOM.8E Use area models to connect geometry to probability and statistics.	P.O.W (WK20)
			Ⓢ GEOM.8F Use conversions between measurement systems to solve problems in real-world situations.	P.O.W (WK20)
			Ⓡ GEOM.11D Describe the effect on perimeter, area, and volume when one or more dimensions of a figure are changed and apply this idea in solving problems.	Week 20
Week 21: DLA Review and **Week 22:** DLA Test and data				
Cycle 5: Feb 16 - April 2	Unit 11: Surface Area	Students build and draw three-dimensional figures, deconstruct them to draw a net, and calculate the total and lateral surface areas.	Ⓢ GEOM.6A Describe and draw various three-dimensional figures and draw the intersection of a given plane with various three-dimensional geometric figures.	Week 23
			Ⓢ GEOM.6B Draw and use nets to represent, construct, and deconstruct three- geometric figures.	Week 23
			Ⓢ GEOM.6C Sketch and use orthographic and isometric views of three-dimensional geometric figures to represent, construct, and deconstruct three-dimensional geometric figures and solve problems.	Week 24
			Ⓡ GEOM.8D Determine surface areas and volumes of prisms, pyramids, spheres, cones, cylinders, and composites of these figures in problem situations using formulas and nets.	POW (Week 23)
			Ⓢ GEOM.8F Use conversions between measurement systems to solve problems in real-world situations.	Week 18 Friday
			Ⓢ GEOM.9D Analyze the characteristics of polyhedra and other three-dimensional figures such as prisms, pyramids, cylinders, cones, and spheres, and their component parts (including vertices, edges, faces, and diagonals), based on explorations and concrete models.	POW (Week 23)
			Ⓡ GEOM.11D Describe the effect on perimeter, area, and volume when one or more dimensions of a figure are changed and apply this idea in solving problems.	POW (Week 23)

Cycle	Unit	Unit Description	TEKS	Week #
Cycle 5: Feb 16 - April 2	Unit 12: Volume	Students build and draw three-dimensional figures and calculate the area of the base and volume of a figure. Students also analyze what occurs when the measure of the lengths of one or more dimensions is changed by a scale factor greater than one or less than one.	Ⓢ GEOM.6B Draw and use nets to represent, construct, and deconstruct three- geometric figures.	Week 23
			Ⓢ GEOM.6C Sketch and use orthographic and isometric views of three-dimensional geometric figures to represent, construct, and deconstruct three-dimensional geometric figures and solve problems.	Week 24
			Ⓡ GEOM.8D Determine surface areas and volumes of prisms, pyramids, spheres, cones, cylinders, and composites of these figures in problem situations using formulas and nets.	POW (Week 23)
			Ⓢ GEOM.8F Use conversions between measurement systems to solve problems in real-world situations.	Review
			Ⓡ GEOM.11D Describe the effect on perimeter, area, and volume when one or more dimensions of a figure are changed and apply this idea in solving problems.	POW (Week 23)
	Week 25: Review week and Week 26 : Snapshot , Data week and review			
Cycle 6: April 6 - May 28	Unit 13: Circles – Sectors and Arc Length	Students apply properties of circles to determine the area of a sector and the length of an arc; then they connect area of a sector to creating circle graphs.	Ⓡ GEOM.8A Determine areas of regular polygons, circles, and composite figures using the area of triangles, squares, rectangles, parallelograms, and/or trapezoids.	Review
			Ⓢ GEOM.8B Determine areas of sectors and arc lengths of circles using proportional reasoning.	Week 27
			Ⓢ GEOM.8E Use area models to connect geometry to probability and statistics.	Review

Cycle	Unit	Unit Description	TEKS	Week #
Cycle 6: April 6 - May 28	**Unit 14: Circles**	Students analyze and apply properties of tangents to a circle and the angles and polygons formed within.	Ⓢ GEOM.1C Compare and contrast the structures and implications of Euclidean and non-Euclidean geometries by determining that some Euclidean definitions and theorems are not valid in non-Euclidean geometries.	Review
			Ⓡ GEOM.2B Make conjectures about angles, lines, polygons, circles, and three-dimensional figures and determine the validity of the conjectures, choosing from a variety of approaches such as coordinate, transformational, or axiomatic.	Review
			Ⓢ GEOM.3B Construct and justify statements about geometric figures including triangles, quadrilaterals, regular polygons, and circles, and their properties.	Review
			Ⓡ GEOM.3C Use logical reasoning and several methods of proof (flow proofs, transformation proofs, coordinate proofs, and two-column proofs) to prove statements are true, and find counter- examples to disprove statements that are false.	Review
			Ⓢ GEOM.8B Determine areas of sectors and arc lengths of circles using proportional reasoning.	Review
			Ⓢ GEOM.9C Formulate and test conjectures about the properties and attributes of circles, including segments within circles and the lines that intersect the circles, based on explorations and concrete models.	Week 28
			Week 29: Review and Week 30: Snapshot 6 and data	
Cycle 6: April 6 - May 28	**Unit 15: Bridging Geometry to Algebra II**	Students solve quadratic equations through a variety of methods in real-world situations	Ⓢ ALGII.2A Use and apply tools including factoring and properties of exponents to simplify expressions and to transform and solve equations and inequalities.	Week 31
			Ⓡ ALGII.6A Determine the reasonable domain and range values of a quadratic function represented by a table of values, graph, function rule, or a contextual situation, as well as interpret and determine the reasonableness of solutions to quadratic equations and inequalities.	week 32
			Ⓡ ALGII.6B Relate representations of quadratic functions, such as algebraic, tabular, graphical, and verbal forms.	Week 33
			Ⓢ ALGII.6C Determine a quadratic function from its roots (real and complex) or a graph.	Week 34
			Ⓢ ALGII.8B Analyze and interpret the solutions of quadratic equations using discriminants and solve quadratic equations using the quadratic formula.	Week 34
			Week 35 and 36: Final exam Review Weeks (Final exam will have 40 Problems)	
			Week 37: Final Exam==> 25% (10 Pr) TEKS from Geometry A. 20% (8 Pr)TEKS from DLA and Snapshots	