Geometry 1-2 Curriculum Map - Phase 1

***The district-adopted high school math curriculum is new for the 2022-23 school year. This map is aligned to the new curriculum and is in Phase 1 of implementation.

Geometry 1-2 is about: (from AZ Standards)

(1) Establish criteria for congruence of geometric figures based on rigid motions and constructions.
(2) Establish criteria for similarity of geometric figures based on dilations and proportional reasoning.
(3) Develop understanding of informal explanations of circumference, area, and volume formulas.
(4) Prove geometric theorems.
(5) Solve problems involving right triangles

- Arizona Mathematics Standards Geometry 1-2
- The standard number is designed for recording purposes and does not imply instructional sequence or importance.
- Our Governing Board adopted curriculum resources for Geometry 1-2 are ALEKS and McGraw Hill.

Unit #	Unit Name	Key Content	AZ Standards
	Initial Knowledge Check	Students will complete the Initial Knowledge Check on the ALEKS platform during the first week of school.	
1	Tools of Geometry & Angles	• Understand the basic elements of geometry, including points, lines, segments, planes, and angles. • Measure distances and compute midpoints on number lines and the coordinate plane. • Find measures of angles. • Find measures to two- and three dimensional figures. • Use precision and accuracy when reporting measurements. • Find measures of angles. • Find measures to two- and three-dimensional figures. • Use precision and accuracy when reporting measurements.	G.G-.MG.A.1 G.G-CO.A.1 G.G - GPE.B.6 GG - CO.D.12 GN-Q.A.1 GN-Q.A.2 GN-Q.A.3
2	Logical Arguments & LIne Relationships	• Calculate the coordinates of the vertices of transformed images given the coordinates of the preimages. • Look for patterns and write conjectures based on those patterns. • Prove conjectures using logical arguments or disprove conjectures using counterexamples. • Apply logical arguments to basic line and angle relationships.	GG-CO.C9 GG-CO.D.12 GG-CO.A.1 GG-MG.A.3 GN-Q.A.1 GN-Q.A.2 GN-Q.A.3 GG-GPE.B.5
3	Transformation & Symmetry	• Calculate the coordinates of the vertices of transformed images given the coordinates of the preimages. • Look for patterns and write conjectures based on those patterns. • Prove conjectures using logical arguments or disprove conjectures using counterexamples. • Apply logical arguments to basic line and angle relationships.	GG-CO.A.2 GG-CO.A.5 GG-CO.B.6 GG-CO.A.3 GG-CO.A.4 GN-Q.A.1 GN-Q.A.2 GN-Q.A.3

Geometry 1-2 Curriculum Map - Phase 1

Paradise Valley Unified School District

4	Triangles & Congruence	• Perform and use rigid motions including rotations, translations, and reflections. • Perform and use compositions of transformations. • Explore symmetry using transformations.	GG-CO.C.10 GG-SRT.B.5 GG-CO.B.7 GG.-CO-B.8 G.G-GPE.B.4 GN-Q.A.1 GN-Q.A.2 GN-Q.A.3
5	Similarity	• Identify similar polygons and use ratios and proportions to solve problems. • Use the AA Similarity Postulate and the SSS and SAS Similarity Theorems to solve problems.	GG-CO.A.2 GG.CO.C10 GG.CO.C12 GG-SRT.A.1 GG-SRT.A.2 GG-SRT.A.3 GG-SRT.B.5 GG-SRT.B.4 GN-Q.A.1 GN-Q.A.2 GN-Q.A.3
6	Relationships in Triangles	• Explore the relationships in triangles that result from the bisectors, medians, and altitudes of triangles. • Recognize and apply the properties of inequalities to the measures of the angles and sides of a triangle. • Apply the Hinge theorem or its converse to make comparisons in two triangles.	GG-CO.C.9 GG-CO.C.10 GG.CO.D.12 GN-Q.A.1 GN-Q.A.2 GN-Q.A.3
7	Quadrilaterals	• Prove theorems and solve problems about polygons and parallelograms. • Recognize and apply the properties of rectangles, rhombi, squares, kites, and trapezoids. • Determine whether quadrilaterals are parallelograms and whether parallelograms are rectangles.	GG-MG.A.1 GG-GPE.B.4 GG-CO.C.11 GN-Q.A.1 GN-Q.A.2 GN-Q.A.3
8	Right Triangles & Trigonometry	• Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems. • Explain and use the relationship between the sine and cosine of complementary angles. • Prove the Laws of Sines and Cosines and use them to solve problems.	GG-SRT.B.4 GG-SRT.B.5 GG.SRT.C.6 GG.SRT.C.7 GG.SRT-C.8 GN-Q.A.1 GN-Q.A.2 GN-Q.A.3
9	Circles	• Measure and find relationships between arcs, chords, and inscribed angles of circles. • Solve problems using relationships between tangents, secants, and circumscribed angles of circles. • Determine and use equations of conic sections.	GG.C.A.1 GG.C.A.2 GG.C.A.3 GG.C.B.5 GG.GMD.A.1 GG.GPE.A.1 GG.GPE.B.4 CC-CO.D.12 CC.CO.D.13 GN-Q.A.1 GN-Q.A.2 GN-Q.A.3

Geometry 1-2 Curriculum Map - Phase 1

10	Measurement	• Give an informal argument for the formulas for the circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone. • Identify the shapes of two-dimensional cross sections of three-dimensional objects. • Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems. • Find measures to two- and three-dimensional figures. • Use precision and accuracy when reporting measurements.	GG.MG.A.2 - GG.MG.A.3 - GG.GMD.A.1 GG.GMD-A.2 GG.GMD.A.3 GG-GMD.B.4 GG.C.B.5 GG.GPE.B.7 GN-Q.A.1 GN-Q.A.2 GN-Q.A.3
11	Front Load Algebra 3-4 (Optional)	• Factoring • Graphing (linear and quadratic) • Solving Systems • Calculator basics (graphing calc)	