Pacing Chart

Approximate Time *Day totals include 1 day to review and 1 day to assess unless otherwise noted*	Critical Concept Units	Benchmarks	Critical Concept Unit Overview – Level 3.0
1st Quarter			
6 days	Algebra 1/ Prerequisite Skills Review		**NOTE: These topics should be covered during this week:** ✓ **Solving Multi-step Equations** ✓ **Using the Triangle Angle Sum to solve multi-step equations** ✓ **Completing Algebraic Proofs**
14 days	**1** **Basics of Geometry and Constructions**	MA.912.G.2.2 MA.912.GR.2.3 MA.912.GR.2.6 MA.912.GR.2.8 MA.912.GR.5.1 MA.912.GR.5.2	**Students will:** ▪ Goal 1- Identify Transformations that do or do not preserve distance. ▪ Goal 2- Identify a sequence of transformations that will map a given figure onto itself or onto another congruent or similar figure. ▪ Goal 3- Apply rigid transformations to map one figure onto another to justify that two figures are congruent. ▪ Goal 4- Apply an appropriate transformation to map one figure onto another to justify that the two figures are similar. ▪ Goal 5- Construct a copy of a segment or angle ▪ Goal 6- Construct the bisector of a segment or an angle, including the perpendicular bisector of a line segment.
9 days	**2** **Proofs & Logic**	MA.912.GR.1.1 MA.912.LT.4.10 MA.912.LT.4.3	**Students will:** ▪ Goal 1- Prove relationships and theorems about lines and angles. Solve mathematical and real-world problems involving postulates, relationships, and theorems of lines and angles. ▪ Goal 2- Judge the validity of arguments and give counterexamples to disprove statements. ▪ Goal 3- Identify and accurately interpret "if…then," "if and only if," "all" and "not" statements. Find the converse, inverse and contrapositive of a statement.
11 days	**3** **Lines & Angles**	MA.912.GR.1.1 MA.912.LT.4.10 MA.912.LT.4.3	**Students will:** ▪ Goal 1- Prove relationships and theorems about lines and angles. Solve mathematical and real-world problems involving postulates, relationships, and theorems of lines and angles. ▪ Goal 2- Judge the validity of arguments and give counterexamples to disprove statements ▪ Goal 3- Identify and accurately interpret "if…then," "if and only if," "all" and "not" statements. Find the converse, inverse and contrapositive of a statement.
10 days	**4** **Rigid Motions & Congruence**	MA.912.GR.2.1 MA.912.GR.2.2 MA.912.GR.2.3 MA.912.GR.2.5 MA.912.GR.2.6	**Students will:** ▪ Goal 1- Given a preimage and an image, describe the transformation algebraically using coordinates. ▪ Goal 2- Identify Transformations that do or do not preserve distance. ▪ Goal 3- Identify a sequence of transformations that will map a given figure onto itself or onto another congruent or similar figure. ▪ Goal 4- Given a geometric figure and a sequence of transformations, draw the transformed figure on a coordinate plane. ▪ Goal 5- Apply rigid transformations to map one figure onto another to justify that two figures are congruent.

Approximate Time	Critical Concept Units	Benchmarks	Critical Concept Unit Overview – Level 3.0
2nd Quarter	**4** **Rigid Motions & Congruence** *continued*		▪ *Continued from Quarter 1*
11 days	**5** **Triangle Congruence**	MA.912.GR.1.2 MA.912.GR.1.6 MA.912.GR.2.1 MA.912.GR.2.3 MA.912.GR.2.6 MA.912.GR.5.1 MA.912.LT.4.10	Students will: ▪ **Goal 1** - Prove triangle congruence or similarity using Side-Side-Side, Side-Angle-Side, Angle-Side-Angle, Angle-Angle-Side, Angle-Angle and Hypotenuse-Leg. ▪ **Goal 2** - Solve mathematical and real-world problems involving congruence or similarity in two-dimensional figures. ▪ **Goal 3** - Given a preimage and image, describe the transformation and represent the transformation algebraically using coordinates. ▪ **Goal 4** - Identify a sequence of transformations that will map a given figure onto itself or onto another congruent or similar figure. ▪ **Goal 5** - Apply rigid transformations to map one figure onto another to justify that the two figures are congruent. ▪ **Goal 6** - Construct a copy of a segment or angle.
13 days *Split assess-ments*	**6** **Dilations & Similarity**	MA.912.GR.1.2 MA.912.GR.1.6 MA.912.GR.2.1 MA.912.GR.2.2 MA.912.GR.2.3 MA.912.GR.2.5 MA.912.GR.2.8	Students will: ▪ **Goal 1** – Given a preimage and image, describe the transformation and represent the transformation algebraically using coordinates. ▪ **Goal 2** - Identify transformations that do or do not preserve distance. ▪ **Goal 3** - Identify a sequence of transformations that will map a given figure onto itself or onto another congruent or similar figure. ▪ **Goal 4** - Given a geometric figure and a sequence of transformations, draw the transformed figure on a coordinate plane. ▪ **Goal 5** - Prove triangle congruence or similarity using SSS, SAS, ASA, AAS, AA, and HL.
11 days	**7** **Trigonometric Ratios**	MA.912.T.1.1 MA.912.T.1.2	Students will: ▪ **Goal 1** - Define trigonometric ratios for acute angles in right triangles. ▪ **Goal 2** - Solve mathematical and real-world problems involving right triangles using trigonometric ratios and the Pythagorean Theorem.
10 days	**8** **Proving Relationships & Theorems**	MA.912.GR.1.4 MA.912.GR.1.5 MA.912.LT.4.10	Students will: ▪ **Goal 1** - Prove relationships and theorems about parallelograms. Solve mathematical and real-world problems involving postulates, relationships and theorems of parallelograms. ▪ **Goal 2** - Prove relationships and theorems about trapezoids. Solve mathematical and real-world problems involving postulates, relationships and theorems of trapezoids.

Approximate Time	Critical Concept Units	Benchmarks	Unit Overview
3rd Quarter	**8** **Proving Relationships & Theorems** *Continued from Quarter 2*		*Continued instruction from Quarter 2*
12 days	**9** **Two- and Three- Dimensional Shapes**	MA.912.GR.4.1 MA.912.GR.4.2 MA.912.GR.4.3 MA.912.GR.4.4 MA.912.GR.4.5 MA.912.GR.4.6	Students will: ▪ **Goal 1- Identify the shapes of two-dimensional cross-sections of three-dimensional figures.** ▪ **Goal 2 - Identify three-dimensional objects generated by rotations of two-dimensional figures.** ▪ **Goal 3 - Solve mathematical and real-world problems involving the area of two-dimensional figures.** ▪ **Goal 4 - Solve mathematical and real-world problems involving the volume and surface area of three-dimensional figures limited to cylinders, pyramids, prisms, cones, and spheres.** ▪ **Goal 5 - Extend previous understanding of scale drawings and scale factors to determine how dilations affect the area of two-dimensional figures and the surface area or volume of three-dimensional figures.**
10 days	**10** **Arcs & Angle Relationships in Circles**	MA.912.GR.6.2 MA.912.GR.6.4	Students will: ▪ **Goal 1 - Solve mathematical and real-world problems involving the measures of arcs and related angles.** ▪ **Goal 2 - Solve mathematical and real-world problems involving the arc length and area of a sector in a given circle.**

Approximate Time		Critical Concept Units	Benchmarks	Unit Overview
4th Quarter	**10 days**	**11** Justifying Relationships in Polygons with Circles	MA.912.GR.1.3 MA.912.GR.5.3 MA.912.GR.6.3 MA.912.LT.4.10	**Students will:** ▪ **Goal 1 -Prove relationships and theorems about triangles and solve mathematical and real-world problems involving postulates, relationships, and theorems of triangles.** ▪ **Goal 2 - Construct the inscribed and circumscribed circles of a triangle.** ▪ **Goal 3 - Solve mathematical problems involving triangles and quadrilaterals inscribed in a circle.**
	10 days	**12** Segment Relationships in Circles	MA.912.GR.6.1 MA.912.GR.7.2 MA.912.GR.7.3	**Students will:** ▪ **Goal 1 - Solve mathematical and real-world problems involving the length of a secant, tangent, segment, or chord in a given circle.** ▪ **Goal 2 - Given a mathematical or real-world context, derive and create the equation of a circle using key features.** ▪ **Goal 3 - Graph and solve mathematical and real-world problems that are modeled with an equation of a circle. Determine and interpret key features in terms of the context.**
	13 days	**13** Shapes on a Coordinate Plane	MA.912.GR.3.1 MA.912.GR.3.2 MA.912.GR.3.3 MA.912.GR.3.4 MA.912.GR.7.2	**Students will:** ▪ **Goal 1 - Determine the weighted average of two or more points on a line.** ▪ **Goal 2 - Given a mathematical or real-world context, use coordinate geometry to classify or justify definitions, properties and theorems involving circles, triangles, or quadrilaterals.** ▪ **Goal 3 - Use coordinate geometry to solve mathematical and real-world geometric problems involving lines, circles, triangles, and quadrilaterals.** ▪ **Goal 4 - Use coordinate geometry to solve mathematical and real-world problems on the coordinate plane involving perimeter or area of polygons.** ▪ **Goal 5 - Given a mathematical or real-world context, derive and create the equation of a circle using key features.**