

Florida Tutorials are designed specifically for the New Florida Standards for Math and English Language Arts and the Next Generation Sunshine State Standards (NGSSS) for science and social studies to prepare students for the Florida Standards Assessments and the NGSSS End-of-Course (EOC) exams.

Math Tutorials offer targeted instruction, practice and review designed to develop computational fluency, deepen conceptual understanding, and apply mathematical practices. They automatically identify and address learning gaps down to elementary-level content, using adaptive remediation to bring students to grade-level no matter where they start. Students engage with the content in an interactive, feedback-rich environment as they progress through standards-aligned modules. By constantly honing the ability to apply their knowledge in abstract and real world scenarios, students build the depth of knowledge and higher order skills required to demonstrate their mastery when put to the test.

In each module, the Learn It and Try It make complex ideas accessible to students through focused content, modeled logic and process, multi-modal representations, and personalized feedback as students reason through increasingly challenging problems. The Review It offers a high impact summary of key concepts and relates those concepts to students' lives. The Test It assesses students' mastery of the module's concepts, providing granular performance data to students and teachers after each attempt. To help students focus on the content most relevant to them, unit-level pretests and posttests can quickly identify where students are strong and where they're still learning.

Unit 1: Logic

• **CONDITIONAL STATEMENTS AND SYLLOGISMS**

- MA.912.LT.4.3: Logic and Discrete Theory Identify and accurately interpret ifthen, if and only if, all and not statements. Find the converse, inverse and contrapositive of a statement.
- MA.912.LT.4.10: Logic and Discrete Theory Judge the validity of arguments and give counterexamples to disprove statements.
- MA.912.LT.4.3: Logic and Discrete Theory Identify and accurately interpret ifthen, if and only if, all and not statements. Find the converse, inverse and contrapositive of a statement.

• **CONVERSE, INVERSE, AND CONTRAPOSITIVE STATEMENTS**

- MA.912.LT.4.3: Logic and Discrete Theory Identify and accurately interpret ifthen, if and only if, all and not statements. Find the converse, inverse and contrapositive of a statement.
- MA.912.LT.4.10: Logic and Discrete Theory Judge the validity of arguments and give counterexamples to disprove statements.
- MA.912.LT.4.3: Logic and Discrete Theory Identify and accurately interpret ifthen, if and only if, all and not statements. Find the converse, inverse and contrapositive of a statement.

- MA.912.LT.4.3: Logic and Discrete Theory Identify and accurately interpret ifthen, if and only if, all and not statements. Find the converse, inverse and contrapositive of a statement.

Unit 2: Points, Lines, and Angles

• POINTS, RAYS, LINE SEGMENTS, LINES, AND FIGURES

- MA.912.GR.3.3: Geometric Reasoning Use coordinate geometry to solve mathematical and real-world geometric problems involving lines, circles, triangles and quadrilaterals.
- MA.912.GR.1.1: Geometric Reasoning Prove relationships and theorems about lines and angles. Solve mathematical and real-world problems involving postulates, relationships and theorems of lines and angles.
- MA.912.GR.6.3: Geometric Reasoning Solve mathematical problems involving triangles and quadrilaterals inscribed in a circle.

• PARALLEL AND PERPENDICULAR LINES

- MA.912.GR.1.1: Geometric Reasoning Prove relationships and theorems about lines and angles. Solve mathematical and real-world problems involving postulates, relationships and theorems of lines and angles.

• PARALLEL LINES AND ANGLE RELATIONSHIPS

- MA.912.GR.3.3: Geometric Reasoning Use coordinate geometry to solve mathematical and real-world geometric problems involving lines, circles, triangles and quadrilaterals.
- MA.912.GR.1.1: Geometric Reasoning Prove relationships and theorems about lines and angles. Solve mathematical and real-world problems involving postulates, relationships and theorems of lines and angles.
- MA.912.GR.6.3: Geometric Reasoning Solve mathematical problems involving triangles and quadrilaterals inscribed in a circle.
- MA.912.GR.3.2: Geometric Reasoning Given a mathematical or real-world context, use coordinate geometry to classify or justify definitions, properties and theorems involving circles, triangles or quadrilaterals.

• PERPENDICULAR BISECTOR AND ANGLE BISECTOR THEOREMS

- MA.912.GR.1.1: Geometric Reasoning Prove relationships and theorems about lines and angles. Solve mathematical and real-world problems involving postulates, relationships and theorems of lines and angles.
- MA.912.GR.1.3: Geometric Reasoning Prove relationships and theorems about triangles. Solve mathematical and real-world problems involving postulates, relationships and theorems of triangles.
- MA.912.LT.4.10: Logic and Discrete Theory Judge the validity of arguments and give counterexamples to disprove statements.

Unit 3: Coordinate Geometry

• SLOPE-INTERCEPT FORM OF A LINEAR EQUATION

- MA.912.GR.3.3: Geometric Reasoning Use coordinate geometry to solve mathematical and real-world geometric problems involving lines, circles, triangles and quadrilaterals.
- **LENGTH AND THE DISTANCE FORMULA**
 - MA.912.GR.3.3: Geometric Reasoning Use coordinate geometry to solve mathematical and real-world geometric problems involving lines, circles, triangles and quadrilaterals.
 - MA.912.GR.3.4: Geometric Reasoning Use coordinate geometry to solve mathematical and real-world problems on the coordinate plane involving perimeter or area of polygons.
 - MA.912.GR.3.2: Geometric Reasoning Given a mathematical or real-world context, use coordinate geometry to classify or justify definitions, properties and theorems involving circles, triangles or quadrilaterals.
- **MIDPOINT FORMULA ON THE COORDINATE PLANE**
 - MA.912.GR.3.3: Geometric Reasoning Use coordinate geometry to solve mathematical and real-world geometric problems involving lines, circles, triangles and quadrilaterals.
 - MA.912.GR.3.2: Geometric Reasoning Given a mathematical or real-world context, use coordinate geometry to classify or justify definitions, properties and theorems involving circles, triangles or quadrilaterals.
- **CONJECTURES IN COORDINATE GEOMETRY**
 - MA.912.GR.3.3: Geometric Reasoning Use coordinate geometry to solve mathematical and real-world geometric problems involving lines, circles, triangles and quadrilaterals.
 - MA.912.GR.1.3: Geometric Reasoning Prove relationships and theorems about triangles. Solve mathematical and real-world problems involving postulates, relationships and theorems of triangles.
 - MA.912.GR.3.2: Geometric Reasoning Given a mathematical or real-world context, use coordinate geometry to classify or justify definitions, properties and theorems involving circles, triangles or quadrilaterals.

Unit 4: Perimeter, Area, and Transformations on the Coordinate Plane

- **PERIMETER ON THE COORDINATE PLANE**
 - MA.912.GR.3.3: Geometric Reasoning Use coordinate geometry to solve mathematical and real-world geometric problems involving lines, circles, triangles and quadrilaterals.
 - MA.912.GR.3.4: Geometric Reasoning Use coordinate geometry to solve mathematical and real-world problems on the coordinate plane involving perimeter or area of polygons.
 - MA.912.GR.3.2: Geometric Reasoning Given a mathematical or real-world context, use coordinate geometry to classify or justify definitions, properties and theorems involving circles, triangles or quadrilaterals.
- **AREA ON THE COORDINATE PLANE**

- MA.912.GR.4.4: Geometric Reasoning Solve mathematical and real-world problems involving the area of two-dimensional figures.
- MA.912.GR.3.3: Geometric Reasoning Use coordinate geometry to solve mathematical and real-world geometric problems involving lines, circles, triangles and quadrilaterals.
- MA.912.GR.3.4: Geometric Reasoning Use coordinate geometry to solve mathematical and real-world problems on the coordinate plane involving perimeter or area of polygons.
- MA.912.GR.3.2: Geometric Reasoning Given a mathematical or real-world context, use coordinate geometry to classify or justify definitions, properties and theorems involving circles, triangles or quadrilaterals.
- **TRANSFORMATIONS ON THE COORDINATE PLANE**
 - MA.912.GR.1.6: Geometric Reasoning Solve mathematical and real-world problems involving congruence or similarity in two-dimensional figures.
 - MA.912.GR.2.3: Geometric Reasoning Identify a sequence of transformations that will map a given figure onto itself or onto another congruent or similar figure.
 - MA.912.GR.2.5: Geometric Reasoning Given a geometric figure and a sequence of transformations, draw the transformed figure on a coordinate plane.
 - MA.912.GR.2.1: Geometric Reasoning Given a preimage and image, describe the transformation and represent the transformation algebraically using coordinates.
 - MA.912.GR.2.8: Geometric Reasoning Apply an appropriate transformation to map one figure onto another to justify that the two figures are similar.
 - MA.912.GR.2.2: Geometric Reasoning Identify transformations that do or do not preserve distance.
 - MA.912.GR.2.6: Geometric Reasoning Apply rigid transformations to map one figure onto another to justify that the two figures are congruent.
- **DILATIONS, TRANSLATIONS, ROTATIONS, AND REFLECTIONS**
 - MA.912.GR.2.3: Geometric Reasoning Identify a sequence of transformations that will map a given figure onto itself or onto another congruent or similar figure.
 - MA.912.GR.2.5: Geometric Reasoning Given a geometric figure and a sequence of transformations, draw the transformed figure on a coordinate plane.
 - MA.912.GR.2.1: Geometric Reasoning Given a preimage and image, describe the transformation and represent the transformation algebraically using coordinates.
 - MA.912.GR.2.8: Geometric Reasoning Apply an appropriate transformation to map one figure onto another to justify that the two figures are similar.
 - MA.912.GR.1.6: Geometric Reasoning Solve mathematical and real-world problems involving congruence or similarity in two-dimensional figures.

- MA.912.GR.2.6: Geometric Reasoning Apply rigid transformations to map one figure onto another to justify that the two figures are congruent.
- MA.912.GR.2.2: Geometric Reasoning Identify transformations that do or do not preserve distance.
- MA.912.GR.4.3: Geometric Reasoning 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.

Unit 5: Congruence and Similarity of Triangles

• TRIANGLE CONGRUENCE

- MA.912.GR.1.6: Geometric Reasoning Solve mathematical and real-world problems involving congruence or similarity in two-dimensional figures.
- MA.912.GR.1.3: Geometric Reasoning Prove relationships and theorems about triangles. Solve mathematical and real-world problems involving postulates, relationships and theorems of triangles.
- MA.912.GR.1.2: Geometric Reasoning Prove triangle congruence or similarity using Side-Side-Side, Side-Angle-Side, Angle-Side-Angle, Angle-Angle-Side, Angle-Angle and Hypotenuse-Leg.

• TRIANGLES AND CONGRUENCE TRANSFORMATIONS

- MA.912.GR.1.3: Geometric Reasoning Prove relationships and theorems about triangles. Solve mathematical and real-world problems involving postulates, relationships and theorems of triangles.
- MA.912.GR.2.3: Geometric Reasoning Identify a sequence of transformations that will map a given figure onto itself or onto another congruent or similar figure.
- MA.912.GR.2.5: Geometric Reasoning Given a geometric figure and a sequence of transformations, draw the transformed figure on a coordinate plane.
- MA.912.GR.2.6: Geometric Reasoning Apply rigid transformations to map one figure onto another to justify that the two figures are congruent.
- MA.912.GR.1.6: Geometric Reasoning Solve mathematical and real-world problems involving congruence or similarity in two-dimensional figures.
- MA.912.GR.1.2: Geometric Reasoning Prove triangle congruence or similarity using Side-Side-Side, Side-Angle-Side, Angle-Side-Angle, Angle-Angle-Side, Angle-Angle and Hypotenuse-Leg.
- MA.912.GR.2.2: Geometric Reasoning Identify transformations that do or do not preserve distance.
- MA.912.GR.2.1: Geometric Reasoning Given a preimage and image, describe the transformation and represent the transformation algebraically using coordinates.

• TRIANGLES AND SIMILARITY TRANSFORMATIONS

- MA.912.GR.1.6: Geometric Reasoning Solve mathematical and real-world problems involving congruence or similarity in two-dimensional figures.
- MA.912.GR.1.3: Geometric Reasoning Prove relationships and theorems about triangles. Solve mathematical and real-world problems involving postulates, relationships and theorems of triangles.
- MA.912.GR.2.3: Geometric Reasoning Identify a sequence of transformations that will map a given figure onto itself or onto another congruent or similar figure.
- MA.912.GR.2.5: Geometric Reasoning Given a geometric figure and a sequence of transformations, draw the transformed figure on a coordinate plane.
- MA.912.GR.2.1: Geometric Reasoning Given a preimage and image, describe the transformation and represent the transformation algebraically using coordinates.
- MA.912.GR.1.2: Geometric Reasoning Prove triangle congruence or similarity using Side-Side-Side, Side-Angle-Side, Angle-Side-Angle, Angle-Angle-Side, Angle-Angle and Hypotenuse-Leg.
- MA.912.GR.2.8: Geometric Reasoning Apply an appropriate transformation to map one figure onto another to justify that the two figures are similar.
- MA.912.GR.2.2: Geometric Reasoning Identify transformations that do or do not preserve distance.
- MA.912.GR.4.3: Geometric Reasoning 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.

Unit 6: Congruence and Similarity of Other Polygons

• CONGRUENCE OF OTHER POLYGONS

- MA.912.GR.1.6: Geometric Reasoning Solve mathematical and real-world problems involving congruence or similarity in two-dimensional figures.
- MA.912.GR.2.3: Geometric Reasoning Identify a sequence of transformations that will map a given figure onto itself or onto another congruent or similar figure.
- MA.912.GR.2.1: Geometric Reasoning Given a preimage and image, describe the transformation and represent the transformation algebraically using coordinates.
- MA.912.GR.2.6: Geometric Reasoning Apply rigid transformations to map one figure onto another to justify that the two figures are congruent.
- MA.912.GR.1.4: Geometric Reasoning Prove relationships and theorems about parallelograms. Solve mathematical and real-world problems involving postulates, relationships and theorems of parallelograms.
- MA.912.GR.2.5: Geometric Reasoning Given a geometric figure and a sequence of transformations, draw the transformed figure on a coordinate plane.
- MA.912.GR.3.2: Geometric Reasoning Given a mathematical or real-world context, use coordinate geometry to classify or justify definitions, properties and theorems involving circles,

triangles or quadrilaterals.

- MA.912.GR.2.2: Geometric Reasoning Identify transformations that do or do not preserve distance.

- **SIMILARITY OF OTHER POLYGONS**

- MA.912.GR.6.3: Geometric Reasoning Solve mathematical problems involving triangles and quadrilaterals inscribed in a circle.
- MA.912.GR.1.6: Geometric Reasoning Solve mathematical and real-world problems involving congruence or similarity in two-dimensional figures.
- MA.912.GR.4.3: Geometric Reasoning 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.
- MA.912.GR.2.3: Geometric Reasoning Identify a sequence of transformations that will map a given figure onto itself or onto another congruent or similar figure.
- MA.912.GR.2.8: Geometric Reasoning Apply an appropriate transformation to map one figure onto another to justify that the two figures are similar.
- MA.912.GR.2.2: Geometric Reasoning Identify transformations that do or do not preserve distance.

Unit 7: Triangles

- **CLASSIFYING TRIANGLES**

- MA.912.GR.1.3: Geometric Reasoning Prove relationships and theorems about triangles. Solve mathematical and real-world problems involving postulates, relationships and theorems of triangles.
- MA.912.GR.6.3: Geometric Reasoning Solve mathematical problems involving triangles and quadrilaterals inscribed in a circle.

- **TRIANGLE ANGLE THEOREMS**

- MA.912.GR.1.3: Geometric Reasoning Prove relationships and theorems about triangles. Solve mathematical and real-world problems involving postulates, relationships and theorems of triangles.

- **TRIANGLE BISECTORS**

- MA.912.GR.1.1: Geometric Reasoning Prove relationships and theorems about lines and angles. Solve mathematical and real-world problems involving postulates, relationships and theorems of lines and angles.
- MA.912.GR.1.3: Geometric Reasoning Prove relationships and theorems about triangles. Solve mathematical and real-world problems involving postulates, relationships and theorems of triangles.

- MA.912.GR.6.3: Geometric Reasoning Solve mathematical problems involving triangles and quadrilaterals inscribed in a circle.
- MA.912.GR.5.3: Geometric Reasoning Construct the inscribed and circumscribed circles of a triangle.

- **MEDIANS AND ALTITUDES OF TRIANGLES**

- MA.912.GR.3.3: Geometric Reasoning Use coordinate geometry to solve mathematical and real-world geometric problems involving lines, circles, triangles and quadrilaterals.
- MA.912.GR.1.3: Geometric Reasoning Prove relationships and theorems about triangles. Solve mathematical and real-world problems involving postulates, relationships and theorems of triangles.

Unit 8: Quadrilaterals and Constructions

- **PARALLELOGRAMS AND RECTANGLES**

- MA.912.GR.1.4: Geometric Reasoning Prove relationships and theorems about parallelograms. Solve mathematical and real-world problems involving postulates, relationships and theorems of parallelograms.

- **SQUARES AND RHOMBI**

- MA.912.GR.1.4: Geometric Reasoning Prove relationships and theorems about parallelograms. Solve mathematical and real-world problems involving postulates, relationships and theorems of parallelograms.

- **TRAPEZOIDS**

- MA.912.GR.1.5: Geometric Reasoning Prove relationships and theorems about trapezoids. Solve mathematical and real-world problems involving postulates, relationships and theorems of trapezoids.
- MA.912.GR.6.3: Geometric Reasoning Solve mathematical problems involving triangles and quadrilaterals inscribed in a circle.

- **CONSTRUCTIONS**

- MA.912.GR.5.2: Geometric Reasoning Construct the bisector of a segment or an angle, including the perpendicular bisector of a line segment.
- MA.912.GR.5.1: Geometric Reasoning Construct a copy of a segment or an angle.
- MA.912.GR.1.2: Geometric Reasoning Prove triangle congruence or similarity using Side-Side-Side, Side-Angle-Side, Angle-Side-Angle, Angle-Angle-Side, Angle-Angle and Hypotenuse-Leg.

Unit 9: Triangles and Trigonometry

- **PYTHAGOREAN THEOREM**

- MA.912.T.1.2: Trigonometry Solve mathematical and real-world problems involving right triangles using trigonometric ratios and the Pythagorean Theorem.

- MA.912.GR.1.3: Geometric Reasoning Prove relationships and theorems about triangles. Solve mathematical and real-world problems involving postulates, relationships and theorems of triangles.

- **TRIGONOMETRIC RATIOS**

- MA.912.T.1.1: Trigonometry Define trigonometric ratios for acute angles in right triangles.
- MA.912.T.1.2: Trigonometry Solve mathematical and real-world problems involving right triangles using trigonometric ratios and the Pythagorean Theorem.

- **RADIANS AND THE UNIT CIRCLE**

- MA.912.GR.6.4: Geometric Reasoning Solve mathematical and real-world problems involving the arc length and area of a sector in a given circle.
- MA.912.T.1.1: Trigonometry Define trigonometric ratios for acute angles in right triangles.
- MA.912.T.1.2: Trigonometry Solve mathematical and real-world problems involving right triangles using trigonometric ratios and the Pythagorean Theorem.

Unit 10: Circles

- **CIRCLE BASICS**

- MA.912.GR.6.2: Geometric Reasoning Solve mathematical and real-world problems involving the measures of arcs and related angles.
- MA.912.GR.6.1: Geometric Reasoning Solve mathematical and real-world problems involving the length of a secant, tangent, segment or chord in a given circle.

- **CENTRAL ANGLES, INSCRIBED ANGLES, AND CHORDS**

- MA.912.GR.1.1: Geometric Reasoning Prove relationships and theorems about lines and angles. Solve mathematical and real-world problems involving postulates, relationships and theorems of lines and angles.
- MA.912.GR.6.3: Geometric Reasoning Solve mathematical problems involving triangles and quadrilaterals inscribed in a circle.
- MA.912.GR.6.2: Geometric Reasoning Solve mathematical and real-world problems involving the measures of arcs and related angles.
- MA.912.GR.6.4: Geometric Reasoning Solve mathematical and real-world problems involving the arc length and area of a sector in a given circle.

- **SECANTS, ANGLES, AND INTERCEPTED ARCS**

- MA.912.GR.6.2: Geometric Reasoning Solve mathematical and real-world problems involving the measures of arcs and related angles.
- MA.912.GR.6.1: Geometric Reasoning Solve mathematical and real-world problems involving the length of a secant, tangent, segment or chord in a given circle.
- MA.912.GR.1.1: Geometric Reasoning Prove relationships and theorems about lines and angles. Solve mathematical and real-world problems involving postulates, relationships and

theorems of lines and angles.

- MA.912.GR.6.3: Geometric Reasoning Solve mathematical problems involving triangles and quadrilaterals inscribed in a circle.
- MA.912.GR.6.4: Geometric Reasoning Solve mathematical and real-world problems involving the arc length and area of a sector in a given circle.

- **TANGENTS, ANGLES, AND INTERCEPTED ARCS**

- MA.912.GR.3.3: Geometric Reasoning Use coordinate geometry to solve mathematical and real-world geometric problems involving lines, circles, triangles and quadrilaterals.
- MA.912.GR.1.1: Geometric Reasoning Prove relationships and theorems about lines and angles. Solve mathematical and real-world problems involving postulates, relationships and theorems of lines and angles.
- MA.912.GR.6.2: Geometric Reasoning Solve mathematical and real-world problems involving the measures of arcs and related angles.
- MA.912.GR.6.4: Geometric Reasoning Solve mathematical and real-world problems involving the arc length and area of a sector in a given circle.
- MA.912.GR.6.1: Geometric Reasoning Solve mathematical and real-world problems involving the length of a secant, tangent, segment or chord in a given circle.
- MA.912.GR.3.2: Geometric Reasoning Given a mathematical or real-world context, use coordinate geometry to classify or justify definitions, properties and theorems involving circles, triangles or quadrilaterals.
- MA.912.GR.6.3: Geometric Reasoning Solve mathematical problems involving triangles and quadrilaterals inscribed in a circle.

Unit 11: Properties of Circles

- **CONGRUENT AND SIMILAR CIRCLES**

- MA.912.GR.1.6: Geometric Reasoning Solve mathematical and real-world problems involving congruence or similarity in two-dimensional figures.
- MA.912.GR.3.3: Geometric Reasoning Use coordinate geometry to solve mathematical and real-world geometric problems involving lines, circles, triangles and quadrilaterals.
- MA.912.GR.2.3: Geometric Reasoning Identify a sequence of transformations that will map a given figure onto itself or onto another congruent or similar figure.
- MA.912.GR.2.5: Geometric Reasoning Given a geometric figure and a sequence of transformations, draw the transformed figure on a coordinate plane.
- MA.912.GR.2.1: Geometric Reasoning Given a preimage and image, describe the transformation and represent the transformation algebraically using coordinates.
- MA.912.GR.2.6: Geometric Reasoning Apply rigid transformations to map one figure onto another to justify that the two figures are congruent.

- MA.912.GR.3.2: Geometric Reasoning Given a mathematical or real-world context, use coordinate geometry to classify or justify definitions, properties and theorems involving circles, triangles or quadrilaterals.
- MA.912.GR.2.8: Geometric Reasoning Apply an appropriate transformation to map one figure onto another to justify that the two figures are similar.
- MA.912.GR.2.2: Geometric Reasoning Identify transformations that do or do not preserve distance.
- **CIRCUMFERENCE AND ARC LENGTH**
 - MA.912.GR.3.3: Geometric Reasoning Use coordinate geometry to solve mathematical and real-world geometric problems involving lines, circles, triangles and quadrilaterals.
 - MA.912.GR.3.2: Geometric Reasoning Given a mathematical or real-world context, use coordinate geometry to classify or justify definitions, properties and theorems involving circles, triangles or quadrilaterals.
 - MA.912.GR.6.4: Geometric Reasoning Solve mathematical and real-world problems involving the arc length and area of a sector in a given circle.
- **AREA OF CIRCLES AND SECTORS**
 - MA.912.GR.4.4: Geometric Reasoning Solve mathematical and real-world problems involving the area of two-dimensional figures.
 - MA.912.GR.6.4: Geometric Reasoning Solve mathematical and real-world problems involving the arc length and area of a sector in a given circle.
- **CIRCLES**
 - MA.912.GR.4.1: Geometric Reasoning Identify the shapes of two-dimensional cross-sections of three-dimensional figures.
 - MA.912.GR.7.3: Geometric Reasoning 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.
 - MA.912.GR.7.2: Geometric Reasoning Given a mathematical or real-world context, derive and create the equation of a circle using key features.

Unit 12: Surface Area

- **SURFACE AREA AND VOLUME OF SPHERES**
 - MA.912.GR.4.5: Geometric Reasoning Solve mathematical and real-world problems involving the volume of three-dimensional figures limited to cylinders, pyramids, prisms, cones and spheres.
 - MA.912.GR.4.1: Geometric Reasoning Identify the shapes of two-dimensional cross-sections of three-dimensional figures.

- MA.912.GR.4.6: Geometric Reasoning Solve mathematical and real-world problems involving the surface area of three-dimensional figures limited to cylinders, pyramids, prisms, cones and spheres.
- MA.912.GR.4.4: Geometric Reasoning Solve mathematical and real-world problems involving the area of two-dimensional figures.
- **RELATING TWO-DIMENSIONAL FIGURES TO THREE-DIMENSIONAL SOLIDS**
 - MA.912.GR.4.1: Geometric Reasoning Identify the shapes of two-dimensional cross-sections of three-dimensional figures.
 - MA.912.GR.4.6: Geometric Reasoning Solve mathematical and real-world problems involving the surface area of three-dimensional figures limited to cylinders, pyramids, prisms, cones and spheres.
 - MA.912.GR.4.2: Geometric Reasoning Identify three-dimensional objects generated by rotations of two-dimensional figures.
- **SURFACE AREA OF COMPOSITE SOLIDS**
 - MA.912.GR.4.6: Geometric Reasoning Solve mathematical and real-world problems involving the surface area of three-dimensional figures limited to cylinders, pyramids, prisms, cones and spheres.

Unit 13: Volume

- **VOLUME OF PRISMS AND PYRAMIDS**
 - MA.912.GR.4.5: Geometric Reasoning Solve mathematical and real-world problems involving the volume of three-dimensional figures limited to cylinders, pyramids, prisms, cones and spheres.
 - MA.912.GR.6.3: Geometric Reasoning Solve mathematical problems involving triangles and quadrilaterals inscribed in a circle.
- **VOLUME OF CYLINDERS AND CONES**
 - MA.912.GR.4.5: Geometric Reasoning Solve mathematical and real-world problems involving the volume of three-dimensional figures limited to cylinders, pyramids, prisms, cones and spheres.
 - MA.912.GR.6.3: Geometric Reasoning Solve mathematical problems involving triangles and quadrilaterals inscribed in a circle.
- **VOLUME OF COMPOSITE SOLIDS**
 - MA.912.GR.4.5: Geometric Reasoning Solve mathematical and real-world problems involving the volume of three-dimensional figures limited to cylinders, pyramids, prisms, cones and spheres.
 - MA.912.GR.6.3: Geometric Reasoning Solve mathematical problems involving triangles and quadrilaterals inscribed in a circle.

- **MODELING SITUATIONS WITH GEOMETRY**

- MA.912.GR.4.4: Geometric Reasoning Solve mathematical and real-world problems involving the area of two-dimensional figures.
- MA.912.GR.4.5: Geometric Reasoning Solve mathematical and real-world problems involving the volume of three-dimensional figures limited to cylinders, pyramids, prisms, cones and spheres.