

**Oklahoma Geometry PASS Mathematics  
Content Standards  
Correlated to *Glencoe Geometry***

<b>PASS Mathematics Content Standard</b>	<b>Lesson References</b>
<b>Standard 1: Logical Reasoning - The student will use deductive and inductive reasoning to solve problems.</b>	
<b>1.1.a</b> Identify the relationships of parallel lines with a transversal.	3-1, 3-2
<b>1.1.b</b> Identify relationships between pairs of angles (e.g., adjacent, complementary, vertical).	1-5, 2-8, 3-2
<b>1.2</b> Determine and use the relationships of congruency and similarity to determine unknown values.	4-1, 4-2, 4-2P, 4-3, 4-4, 4-5, 4-5F, 4-6, 4-7, 6-2, 6-3, 6-4, 6-5, 13-4
<b>1.3</b> Use logical reasoning skills (inductive and deductive) to make and test conjectures, formulate counter examples, follow logical arguments, judge the validity of arguments and construct simple valid arguments.	2-1, 2-2, 2-3, 2-4, 4-2, 4-3, 4-4, 4-5, 4-5F, 4-6, 4-7, 5-2, 6-3, 6-4, 6-5, 7-1, 7-2, 7-2P, 8-2, 8-3, 8-4, 8-5, 8-6, 8-7
<b>Standard 2: Properties of 2- and 3-Dimensional Figures - The student will use the properties and formulas of geometric figures to solve problems.</b>	
<b>2.1.a</b> Identify and describe polygons (e.g., convex, concave, regular).	1-6
<b>2.1.b</b> Apply the interior and exterior angle sum of convex polygons to solve problems.	1-6F, 8-1
<b>2.1.c</b> Develop and apply the properties of quadrilaterals to solve problems (e.g., rectangles, parallelograms, rhombi, trapezoids, kites).	8-2, 8-3, 8-4, 8-5, 8-5F, 8-6
<b>2.2</b> Draw and analyze 2- and 3-dimensional figures.	1-1, 1-3, 1-4, 1-5, 1-6, 4-5F, 7-1, 7-2, 7-2P, 8-2, 8-3, 8-4, 8-5, 8-5F, 8-6, 12-1, 12-2, 12-3, 12-4, 12-5, 12-6, 12-7, 13-1, 13-2, 13-3
<b>2.3</b> Use properties of 2- and 3-dimensional figures to determine unknown values (e.g., given the perimeter/circumference, find the area).	1-6, 4-1, 4-4, 8-1, 10-1, 11-1, 11-2, 11-3, 13-1, 13-2, 13-3, 13-4
<b>2.4</b> Compute length, perimeter or circumference, area, volume, and surface area of geometric figures with missing information and correctly identify the appropriate unit of measure of each.	1-3, 1-6, 6-2, 10-1, 11-1, 11-2, 11-3, 11-5, 13-1, 13-2, 13-3, 13-4
<b>2.5</b> Use geometric tools (e.g., protractor, compass, straight edge) to construct a variety of figures.	1-2, 1-3, 1-4, 1-5, 3-5, 3-6, 5-1P, 6-4, 8-4, 8-5, 8-5F, 8-6, 10-2, 11-1, 11-2, 11-3
<b>2.6</b> Find angle measures and arc measures related to circles.	10-2
<b>2.7.a</b> Identify and describe the relationship between two chords that intersect in the interior of a circle.	10-6, 10-7

<b>2.7.b</b>	Identify and describe the relationship between two secants that intersect in the exterior of a circle.	10-6, 10-7
<b>2.7.c</b>	Identify and describe the relationship between a secant and a tangent that intersect in the exterior of a circle.	10-6, 10-7
<b>Standard 3: Coordinate Geometry - The student will solve problems with geometric figures in the coordinate plane.</b>		
<b>3.1</b>	Use transformations (reflection, rotation, translation) within coordinate geometry (e.g., reflect points across the <i>y</i> -axis).	4-3, 9-1, 9-2, 9-3, 9-7
<b>3.2</b>	Use coordinate geometry to find the distance between two points; the midpoint of a segment; and to calculate the slopes of parallel, perpendicular, horizontal, and vertical lines.	1-3, 3-3, 3-6, 4-1, 6-2, 6-4, 7-3, 7-4, 9-6, 13-5
<b>3.3</b>	Given a set of points determine the type of figure based on its properties (e.g., parallelogram, isosceles triangle, regular octagon).	8-2, 8-3, 8-4, 8-5, 8-6
<b>Standard 4: Angles, Triangles and Similar Polygons - The student will use the properties of angles, right triangles and similar polygons to solve problems.</b>		
<b>4.1</b>	Solve problems using properties of angles (e.g., interior, exterior, complementary, vertical, angle sums, 30-60-90).	4-2, 4-2P, 4-5F, 7-3
<b>4.2</b>	Use the Pythagorean Theorem and its converse to find missing side lengths and to determine acute, right, and obtuse triangles.	7-2, 7-3
<b>4.3</b>	Apply the 45-45-90 and 30-60-90 right triangle relationships to solve problems.	7-3
<b>4.4</b>	Express the trigonometric functions as ratios and derive the relationship between sine, cosine, and tangent ratios, and use to solve real-world problems.	7-4, 7-5, 7-6, 7-7, 9-6
<b>4.5.a</b>	Use similar figures to construct ratios and solve for a missing side.	6-2, 6-3, 6-4, 6-5
<b>4.5.b</b>	Use ratios of similar figures to find linear distance, perimeter, area, and volume.	6-2, 6-3, 6-4, 6-5