

TOPIC

Competency: Computation- I can use various geometric properties in order to find key values of different geometric figures.			
Standard – G.GPD.5- Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems (e.g., find the equation of a line parallel or perpendicular to a given line that passes through a given point).			
Learning Targets & Skills		Vocabulary	
4.0	Student goes above and beyond simple mastery to demonstrates a deeper understanding than a Level 3.0.	<ul style="list-style-type: none">• Angle• Congruent• Corresponding• Intersect• Line• One-Dimensional• Parallel• Plane• Point• Ratio• Right Triangle• Similar• Slope• Transversal	
3.0	PPL1- I can prove that the slopes of parallel lines are equal		
2.0	<ul style="list-style-type: none">• Define a line as a one-dimensional figure of no thickness and infinite length.• Define parallel lines as lines in the same plane that always remain an equal distance from one another and never intersect.• Explain that similar triangles have congruent corresponding angles and congruent corresponding side length ratios.• Identify the similar right triangles formed when parallel lines cross both the x- and y-axes.• Explain that parallel lines crossed by a transversal have congruent corresponding angles.• Explain that slope is the vertical change over the horizontal change between any two points on a line.	Resources	
		<ul style="list-style-type: none">• Type here	
Evidence			

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Standard – G.GPD.5- Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems (e.g., find the equation of a line parallel or perpendicular to a given line that passes through a given point).			
Learning Targets & Skills		Vocabulary	
4.0	Student goes above and beyond simple mastery to demonstrates a deeper understanding than a Level 3.0.	<ul style="list-style-type: none">• Angle• Congruent• Corresponding• Hypotenuse• Intersect• Line• One-Dimensional• Opposite Angles• Parallel• Perpendicular• Plane• Point• Ratio• Reciprocal• Right Triangle• Similar• Slope• Supplementary Angles• Vertex• Vertical Angles	
3.0	PPL2. I can prove that the slopes of perpendicular lines are negative reciprocals of each other		
2.0	<ul style="list-style-type: none">• State that perpendicular lines are lines on the same plane that intersect at a angle.• Explain that opposite angles of intersecting lines are congruent.• State that supplementary angles are angles that combine to form a straight line and whose sum is .• Explain that the sum of all angles in a triangle is .• Explain that similar triangles have congruent corresponding angles and congruent corresponding side length ratios.• Explain that slope is the vertical change over the horizontal change between any two points on a line.• Explain that the slopes of parallel lines are equal.• Explain that the reciprocal of a value is equal to divided by the value. For example, the reciprocal of is .• State that the product of a value and its reciprocal is equal to .• Explain that the slopes of perpendicular lines are negative reciprocals of each other. For example, if a line has a slope of , then a line perpendicular to it will have a slope of .	Resources	
		<ul style="list-style-type: none">• Type here	
Evidence			

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Standard – G.CO.9- Prove theorems about lines and angles. Theorems include: vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; points on a perpendicular bisector of a line segment are exactly those equidistant from the segment’s endpoints.

Learning Targets & Skills		Vocabulary	
4.0	Student goes above and beyond simple mastery to demonstrates a deeper understanding than a Level 3.0.	<div><div><ul style="list-style-type: none">• Angle• Congruent• Endpoint• Hypotenuse• Intersect• Leg• Line Segment</div><div><ul style="list-style-type: none">• Line• One-Dimensional• Perpendicular Bisector• Plane• Point• Pythagorean Theorem• Right Triangle</div></div>	
3.0	PPL3- I can prove that a perpendicular bisector of a line segment includes all the points that are equidistant from the endpoints of the line segment		
2.0	<div><ul style="list-style-type: none">• Define perpendicular lines as lines on the same plane that intersect at a angle.• Explain that the bisector of a line segment divides that line segment into two equal lengths.• Identify the right triangles formed by a line segment, its perpendicular bisector, and the lines connecting a point on the bisector to either endpoint of the line segment.• Explain that the Pythagorean Theorem states that the square of the hypotenuse of a right triangle is equal to the sum of the squares of its legs.</div>	Resources	
		<div><ul style="list-style-type: none">• Type here</div>	
Evidence			

Competency: Computation- I can use various geometric properties in order to find key values of different geometric figures.			
Standard – G.CO.9, G.CO.1			
Learning Targets & Skills		Vocabulary	
4.0	Student goes above and beyond simple mastery to demonstrates a deeper understanding than a Level 3.0.	<ul style="list-style-type: none">• Angle• Congruent• Endpoint• Intersect• Line	<ul style="list-style-type: none">• Opposite Angles• Ray• Supplementary Angles• Vertex• Vertical Angles
3.0	ATPL1- I can prove that opposite angles of intersecting lines are congruent	Resources	
2.0	<ul style="list-style-type: none">• State that a ray is a line with a starting point, but no endpoint.• State that an angle is a figure formed by two rays that have the same vertex.• Explain that opposite angles are angles that are directly opposite each other (across the vertex) when two lines intersect.• Explain that opposite angles are also known as vertical angles.• State that supplementary angles are angles that combine to form a straight line and whose sum is .• Explain that the measure of an angle is equal to minus the measure of its supplementary angle(s).• Identify opposite angles on a diagram.		
Evidence			

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Standard – G.CO.9, G.CO.1

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3.0	ATPL2- I can prove that alternate interior angles are congruent		
2.0	<ul style="list-style-type: none">• State that parallel lines are lines in the same plane that always remain an equal distance from one another and never intersect.• Identify the corresponding angles formed when a transversal crosses parallel lines.• Explain why corresponding angles of parallel lines crossed by transversals are congruent.• State that supplementary angles are angles that combine to form a straight line and whose sum is .• Explain that the measure of an angle is equal to minus the measure of its supplementary angle(s).• Explain that the alternate interior angles of parallel lines crossed by a transversal are angles between the parallel lines, but on opposite sides of the transversal.• Identify alternate interior angles on a diagram.	Resources	
		<ul style="list-style-type: none">• Type here	
Evidence			