

Math					
2.10 Trigonometry					
K	1	2	3	4	5
A. Define a “corner” by tracing a corner of a real-life object using your finger.	A. Identify the number of corners in a square and a rectangle.	A. Give examples of corners found in real-life objects.	A. Identify right angles in the environment.	A. Identify right angles and right triangles	A. Identify and compare parts of right triangles, including right angles, acute angles, hypotenuses and legs.
B. Count the sides of shapes.	B. Identify the number of sides of shapes.	B. Identify the number of sides and corners of shapes.	B. Model right angles and right triangles using concrete objects.	B. Model right angles and right triangles.	B. Create right triangles on a geoboard.

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3, 5, 8, 11 (bold) = PA Academic Standards

Math		
2.10 Trigonometry		
6	7	8
A. Draw right triangles and measure lengths of legs and the hypotenuse. Discover that the hypotenuse needs to be the longest side.	A. Given three lengths, determine whether a triangle can be formed.	A. Compute measures of sides and angles using proportions, the Pythagorean Theorem and right triangle relationships.
B. Identify similar triangles in real world situations.	B. Draw similar triangles. Determine if two triangles are similar. Determine the measure of the length of a missing side of two similar triangles.	B. Solve problems requiring indirect measurement for lengths of sides of triangles.

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Math

2.10 Trigonometry

9	10	11	12
A. Use graphics calculators or computer software to describe properties of graphs. Have students plot the periodic function “distance from 12 noon as minute hand rotates around the clock,” distance as a function of time.	A. Introduce trigonometric relations of time, cosine, and tangent during the right-triangle unit.	A. Use graphing calculators to display periodic and circular functions; describe properties of the graphs.	
B. Solve application problems using the Pythagorean Theorem.	B. In the right-triangle unit, use sine, cosine, or tangent to solve simple problems.	B. Identify, create and solve practical problems involving right triangles using the trigonometric functions and the Pythagorean Theorem.	

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