Unit 4A - Quadrilaterals

8 Days of Instruction

These standards expand in all Units of Geometry to reinforce real-world phenomena.

Unit 4A	*Geometry: Concepts and Connections* Quadrilaterals

Unit 4 A: Day 1	**Standards:**
	A.GSR.3.2
	Apply the distance formula, midpoint formula, and slope of line segments to solve real-world problems.
	
	LT:
	
	   o I can find the midpoint between 2 points and find the slope of a line segment containing two points.
	
	SC:
	
	   o I can find the midpoint between 2 points.
	   o I can identify $x_1, y_1, x_2,$ and y_2
	   o I can use these values and the midpoint and slope formulas to find the midpoint and slope.
	   o I can identify that parallel lines have the same slope.
	   o I can identify that perpendicular lines have opposite reciprocal slopes.

Day 2-3	**Standards:** **G.GSR.6.3** Use trigonometric ratios and the Pythagorean Theorem to solve for sides and angles of right triangles in applied problems. **LT:** o I can use the Pythagorean Theorem and use the distance formula. **SC:** o I can find the missing leg of a right triangle. o I can find the missing hypotenuse of a right triangle. o I can solve real-life problems involving the side lengths of right triangles. o I can derive the distance formula using the Pythagorean Theorem and apply it to find the side length of a polygon.

Day 4-5	**Standards:**
	G.GSR.4.2
	Classify quadrilaterals in the coordinate plane by proving simple geometric theorems algebraically.
	
	LT:
	   o I can classify quadrilaterals in the coordinate plane using slope and distance formulas.
	
	SC:
	
	   o I can write angle congruency statements for two similar figures.
	   o I can write a proportionality statement for two similar figures.
	   o I can find the scale factor between two similar figures.
	   o I can decide if two figures are similar.
	   o I can find missing sides using proportions with similar figures.

Day 6-7	**Standards:** **G.GSR.4.2** Classify quadrilaterals in the coordinate plane by proving simple geometric theorems algebraically. **LT:** o I can prove theorems about Quadrilaterals. **SC:** o I can classify quadrilaterals. o I can prove opposite sides of a parallelogram are parallel and congruent. o I can prove opposite angles of a parallelogram are congruent. o I can prove consecutive angles of a parallelogram are supplementary. o I can prove diagonals of a parallelogram bisect each other. o I can use properties of quadrilaterals to solve for missing angles/sides.

Day 8	**Standards:** **G.GSR.4.2** Classify quadrilaterals in the coordinate plane by proving simple geometric theorems algebraically.

G.GSR.4.2 Classify quadrilaterals in the coordinate plane by proving simple geometric theorems algebraically.

G.GSR.6.3 Use trigonometric ratios and the Pythagorean Theorem to solve for sides and angles of right triangles in applied problems.

A.GSR.3.2 Apply the distance formula, midpoint formula, and slope of line segments to solve real-world problems.