

Grade 2 Mathematics	Unit 8 – Diagonals and Midpoints
Big Idea/Rationale:	Unit 8 begins with a review of naming quadrilaterals. Children are then introduced to drawing diagonals in quadrilateral. After discussing types of triangles, children describe the shapes resulting from drawing diagonals in quadrilaterals. Children also explore different ways of finding midpoints of line segments and apply these skills to decomposing quadrilaterals by joining midpoints of their opposite sides. Children describe the resulting shapes in several ways, and compare them to the original quadrilaterals. <ul style="list-style-type: none"> • Decomposing Quadrilaterals
Enduring Understandings:	Students will understand that: <ul style="list-style-type: none"> • Two-dimensional geometric shapes can be divided in specific ways to form other two-dimensional figures.
Essential Questions:	<ul style="list-style-type: none"> • What makes a shape a quadrilateral? • How can you find the midpoints of the sides of a quadrilateral? • How can you find the diagonals of a quadrilateral? • What new shapes are formed when you divide a quadrilateral at its midpoints or diagonals?
Lesson Objectives:	<ul style="list-style-type: none"> • Review and define quadrilaterals. • Draw diagonals in quadrilaterals. • Observe shapes formed by diagonal lines in quadrilaterals. • Define midpoint. • Explore ways to find the midpoint of a line segment. • Predict the shapes that will be formed by joining midpoints of opposite sides of quadrilaterals. • Join midpoints of opposite sides of quadrilaterals. • Draw diagonals and connect midpoints of opposite sides in quadrilaterals. • Observe shapes formed by decomposing quadrilaterals.
Common Core State Standards:	<p>2.MD.A.3: Estimate lengths using units of inches, feet, centimeters, and meters.</p> <p>2.G.A.1.: Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.</p> <p>Mathematical Practices</p>
Materials and Resources:	Grade 2 Math Expressions, Math Journals, manipulatives, IXL Mathematics