Grade 3: Cluster 5
Reasoning With Shapes and Attributes

Dear _____

Focus of the Unit
Students spend time in this unit reasoning about two-dimensional shapes and their attributes, or traits with an emphasis on quadrilaterals (four-sided polygons). They will be able to recognize and draw both examples and non-examples of a variety of quadrilaterals including rhombuses, rectangles, squares, parallelograms, and trapezoids. Third graders also work with triangles in this unit.

Building off past mathematics
In grade 2 students explored the attributes of 2D and 3D shapes. An emphasis was on using precise vocabulary and recognizing traits like number of sides, angles and edges that were used in classifying the shapes. Specific shapes from second grade include: triangles, quadrilaterals, pentagons, hexagons, rectangular prisms, and cubes. Third graders will use this knowledge explore quadrilaterals in greater detail.

Strategies that students will learn
Students will describe, analyze, and compare properties of 2D shapes with an emphasis on triangles and quadrilaterals. They will learn to classify shapes by comparing their sides and angles, and connect these with definitions of shapes. Students are expected to communicate their reasoning about their classifications using precise language and evidence for their thinking.

They will recognize that a quadrilateral is a closed figure with four straight sides, but will need to explore attributes like types of angles and parallel sides to help them group quadrilaterals into more specific classes like squares, rectangles, rhombuses, parallelograms, and trapezoids.

Ideas for home support
- Look for geometric shapes in the real world. Ask your student to identify the shape and describe its attributes. (How do you know it's a trapezoid?)
- Choose puzzles or games like tangrams that can support geometric thinking.

Thank you for serving as partners in your child's success as a mathematician!
Grade 3 Math Team