



Dear Third Grade Families,

In Unit 9, students will work on the following third grade Common Core standards in the Geometry (G) domain.

3.G.1	Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.
3.G.2	Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. <i>For example, partition a shape into 4 parts with equal area, and describe the area of each part as $\frac{1}{4}$ of the area of the shape.</i>

Unit 9 Concepts:

- Understand categories of quadrilaterals
- Recognize and draw examples of different types of quadrilaterals
- Partition and name unit fractions of the whole

Unit 9 Vocabulary:

- quadrilaterals: trapezoid, parallelogram, rectangle, rhombus, square
- right angles
- parallel lines
- half
- fourth

As a help to families, a Hierarchy of Quadrilaterals is offered on the back of this page.

Ask questions like these to help your child become a productive mathematical thinker:

- How are all quadrilaterals the same?
- What special attributes does a rectangle have?
- Why is a square both a special kind of rectangle and a special kind of rhombus?
- How is a rectangle different from a parallelogram?
- Draw a rectangle and partition it into 4 equal areas. Name the fraction of each area.
- Draw a trapezoid. Partition it into 2 equal parts.
- Describe the relationship between parallel lines and any parallelogram.
- Describe the difference in the angles of a rhombus and the angles of a square.

Need a review? Check out our lesson videos on-line!

swunmath.com/student-videos

If you don't know the class's special name, ask your child's teacher.

We encourage you to talk with your child daily about what was learned in math class.

Thank you for your support!

Grade 3 – Unit 9

Geometry–Hierarchy of Quadrilaterals



This Hierarchy of Quadrilaterals is offered as a resource for teachers.

In grade 2, students identified all polygons with 4 sides and 4 angles as quadrilaterals (2.G.1). In grade 3, students further their study of the attributes of different categories of quadrilaterals (parallelograms, trapezoids, rectangles, rhombi) (3.G.1). Kite and isosceles trapezoid are not a focus of this grade-level, but are shown to clarify how they are categorized as quadrilaterals.

Third Graders are expected to understand that the **bolded** quadrilaterals in different categories may share attributes and that shared attributes can define a larger category

