



Dear Fourth Grade Families,

In Unit 11, students will work on the following fourth grade Common Core standards in the Geometry (G) domain:

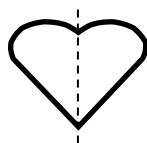
4.G.1	Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.
4.G.2	Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.
4.G.3	Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.

Unit 11 Concepts:

- Identify parallel and perpendicular lines
- Draw parallel and perpendicular lines
- Classify triangles based on lines and angles
- Classify quadrilaterals based on lines and angles
- Identify lines of symmetry
- Draw lines of symmetry

Unit 11 Vocabulary:

- Parallel
- Perpendicular
- Triangle: equilateral, scalene, isosceles; acute, right, obtuse
- Quadrilaterals: trapezoid, parallelogram, rectangle, rhombus, square
- Symmetry



Need a review?

Have your student login to Swun Math to access lesson support videos.

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

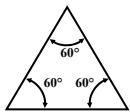
- Draw a line parallel to this one. Draw a line perpendicular to both of these parallel lines. What does perpendicular mean?
- How is a right triangle different from an acute triangle?
- Why can't an equilateral triangle have a right angle?
- Can an equilateral triangle be scalene? How do you know?
- What are all the geometric names a square could be called?
- Tell me about the angles found in a rectangle. How are they different from the angles in a non-rectangular parallelogram?
- How many lines of symmetry does a circle have? How do you know?

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

Classification of Triangles & Quadrilaterals

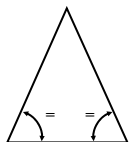


Triangles classified by side:



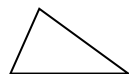
Equilateral Triangle

Three equal sides
Three equal angles, always 60°



Isosceles Triangle

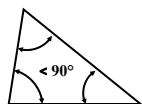
Two equal sides
Two equal angles



Scalene Triangle

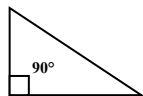
No equal sides
No equal angles

Triangles classified by angle:



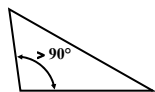
Acute Triangle

All angles are less than 90°



Right Triangle

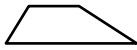
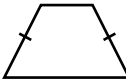
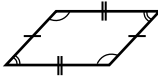
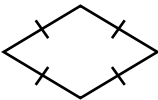
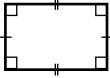

Has a right angle (90°)



Obtuse Triangle

Has an angle greater than 90°

Diagram of Quadrilaterals

Quadrilateral Name	Sides	Angles
Trapezoid 	<ul style="list-style-type: none"> At least one pair of opposite sides parallel 	<ul style="list-style-type: none"> Nothing unique/special
Isosceles Trapezoid 	<ul style="list-style-type: none"> Exactly one pair of opposite sides parallel One pair of opposite sides are congruent 	<ul style="list-style-type: none"> Two angles are acute angles and congruent Two angles are obtuse angles and congruent
Parallelogram 	<ul style="list-style-type: none"> Both pairs of opposite sides are congruent Both pairs of opposite sides parallel 	<ul style="list-style-type: none"> Opposite angles are equal
Rhombus 	<ul style="list-style-type: none"> All sides are congruent Both pairs of opposite sides parallel 	<ul style="list-style-type: none"> Opposite angles are equal
Rectangle 	<ul style="list-style-type: none"> Both pairs of opposite sides are congruent Both pairs of opposite sides parallel 	<ul style="list-style-type: none"> All 4 angles are right angles
Square 	<ul style="list-style-type: none"> All sides congruent. Opposite sides parallel 	<ul style="list-style-type: none"> All 4 angles are right angles