



Dear Fourth Grade Families,

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

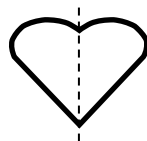
4.G.1	Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.
4.G.2	Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles 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



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?

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.

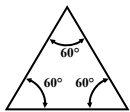
We encourage you to talk with your child daily about what was learned in math class.

Thank you for your support!

Classification of Triangles & Quadrilaterals

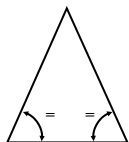


Triangles classified by side:



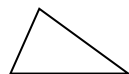
Equilateral Triangle

Three equal sides
Three equal angles,
always 60°



Isosceles Triangle

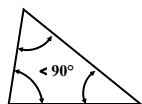
Two equal sides
Two equal angles



Scalene Triangle

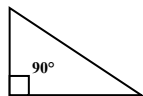
No equal sides
No equal angles

Triangles classified by angle:



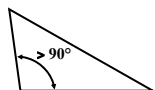
Acute Triangle

All angles are less
than 90°



Right Triangle

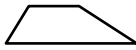
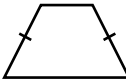
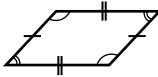
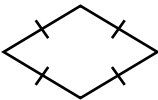
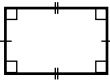

Has a right angle
(90°)



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