MATH NEWS

Fourth Grade Newsletter   Summer/Fall

Math Tips for Families   Unit 3: Geometry

Throughout this unit, students will continue their understanding of geometry. Students will be working with shapes and angles, measuring and sketching angles with a protractor, and identifying angles as right, obtuse, or acute. They will gain knowledge of angles as additives, and use that information to find unknown angles in real-world problems. Thy will use visualization to recognize and name figures (they observe, build, take apart) and work with to see how they are alike and different. Next, they will analyze the shapes. Classes of shapes are studied by attribute and students
apply understandings to all in this category and will identify and classify by their types of lines, angles, and lines of symmetry.

Parallel Lines- always the same distance apart

Look for real world examples like this double yellow line.

Perpendicular Lines- form right angles where they intersect

Intersecting Lines- lines that intersect but do not form right angles

Words to Know:

Point- an exact position or location on a plane surface

Ray- a line that starts at a point and goes off in a particular direction without end

Angle- two rays that share an endpoint

Right angle- an angle that measures exactly 90 degrees

Obtuse angle- measuring more than 90 degrees but less than 180 degrees

Acute angle- an angle that measures less than 90 degrees

Attributes- sides, angles, shape, size of figures

Classify- put things in groups based on a property

Symmetry- an object is symmetrical when one half is a mirror image of the other half

Scalene triangle- a triangle with none of the sides the same length
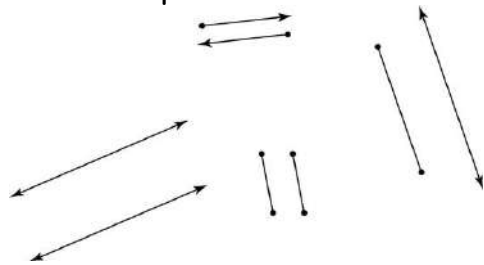
Isosceles triangle- a triangle with two equal sides

Equilateral triangle- a triangle with three equal sides

Right triangle- has 1 right angle and 2 acute angles

Obtuse triangle- has 1 obtuse angle and 2 acute angles

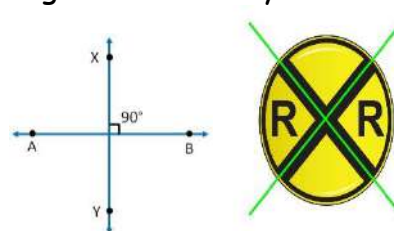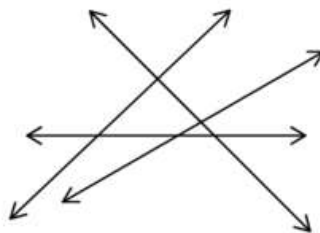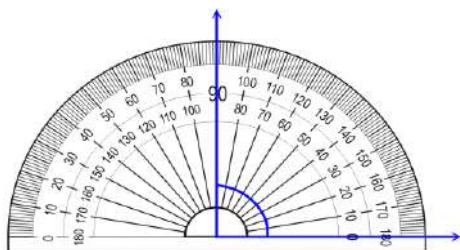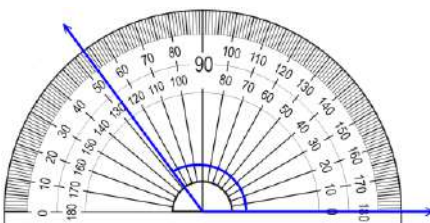**Acute triangle-** has 3 acute angles

There are two different ways to name a triangle based on attributes.
One involves the size of the angles (Right, Obtuse, and Acute Triangles) and the other way to categorize angles is by the length of the sides (Scalene, Isosceles, Equilateral).
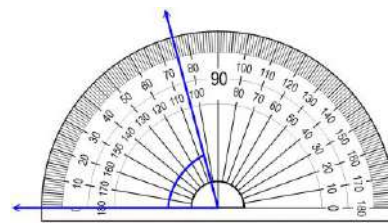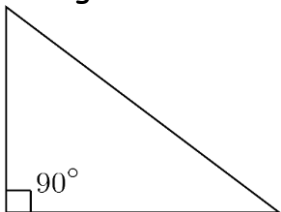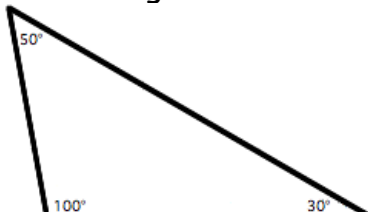
Right Angle	Obtuse Angle	Acute Angle

Right Triangle	Obtuse Triangle	Acute Triangle
90°	50° 100° 30°	80° 30° 70°
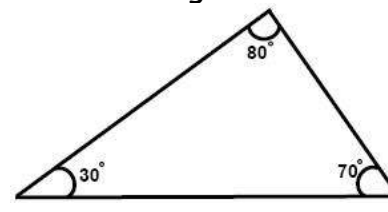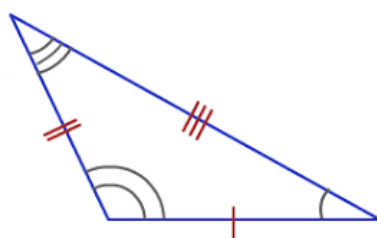
Scalene Triangle	Isosceles Triangle	Equilateral Triangle
	A 5 cm 5 cm B 4 cm C	A B C
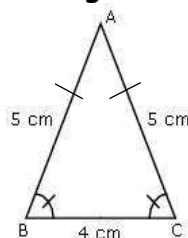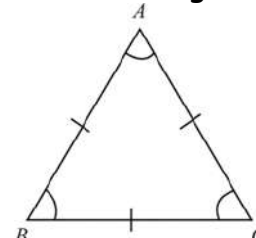
Key California Content Standards for this Unit
1. draw points, lines, rays, angles, and perpendicular and parallel lines
2. use a protractor to measure and sketch angles
3. classify two-dimensional figures based on their types of lines and measures of angles
4. recognize a line of symmetry for a two-dimensional figure to be folded into matching parts

How you can help at home:
- Find items around the house or your town for your student to identify attributes. Classify into different categories.
- Point out sets of lines that you see around you (borders of a sidewalk, railroad tracks, edges of a window) and non- examples.
- Discuss symmetry and lines of symmetry (the folder across which is a mirror image) and have students find examples.

Classifying figures

Shape		Right angles	Obtuse angles	Acute angles	Parallel lines	Lines of symmetry
Rectangle		X			X	X
Equilateral triangle				X		X
Trapezoid			X	X	X	X
Isosceles triangle		X		X		X
Scalene triangle			X	X		

TUSD ~
Supporting community & family understanding

Sources Used in this Newsletter:
- California Mathematics Content Standards
- California Mathematics Framework
- Eureka Math Tips for Parents
- Lafayette Parish School System: "All Hands on Deck with Math" Topic Newsletters https://www.lpssonline.com/site5579.php