4th Grade Math

Module 4: Angle Measure and Plane Figures

Math Parent Letter

This document is created to give parents and students a better understanding of the math concepts found in Eureka Math (© 2013 Common Core, Inc.) that is also posted as the Engage New York material which is taught in the classroom. Module 4 of Eureka Math (Engage New York) covers angle measures and plane figures.
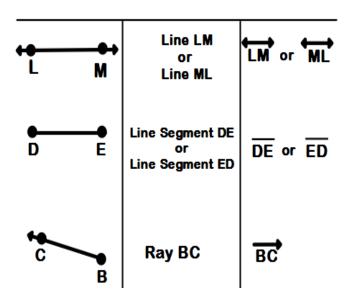
Focus Area – Topic A   *Lines* and *Angles*

Words to Know:

Point -precise location in the plane
Line - straight path with no thickness that extends in both directions without end
Line segment – part of a line connecting two endpoints
Ray - a part of a line which starts at a point and goes off in a particular direction to infinity.
▸ Always name a ray by starting with its endpoint

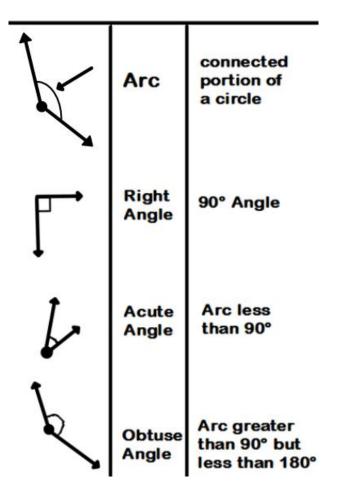|		
L M	Line LM or Line ML	LM or ML
D E	Line Segment DE or Line Segment ED	DE or ED
C B	Ray BC	BC

Focus Area – Topic A

*Lines and **Angles***

Words to Know:

Arc -connected portion of a circle
Angle - union of two different rays sharing a vertex
Vertex - a point, often used to refer to the point where two lines meet, such as in an angle or the corner of a triangle
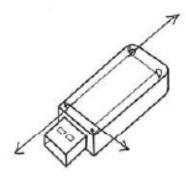**Obtuse angle** - angle with a measure greater than 90 degrees but less than 180 degrees
Acute angle - angle with a measure of less than 90 degrees

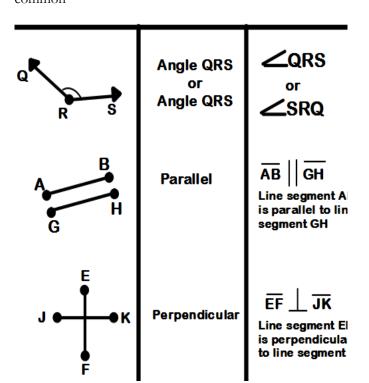|		
	Arc	connected portion of a circle
	Right Angle	90° Angle
	Acute Angle	Arc less than 90°
	Obtuse Angle	Arc greater than 90° but less than 180°

Module 4: Angle Measure and Plane Figures

In topic A students use their understanding of angles to explore relationships between pairs of lines, defining and recognizing intersecting, perpendicular, and parallel lines. Their knowledge of right angles leads them to identify and define as well as construct perpendicular lines. Students learn how lines that never intersect also have a special relationship and are called parallel. They explore these concepts by finding parallel and perpendicular lines in common shapes and objects.
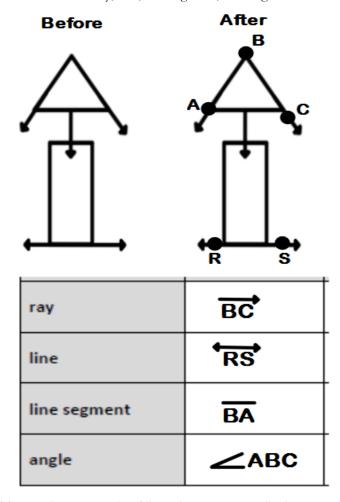
Words to Know:

Parallel - two lines in a plane that do not intersect

Perpendicular - Two lines are perpendicular if they intersect, and any of the angles formed between the lines is a 90° angle.

Intersecting lines - lines that contain at least one point in common

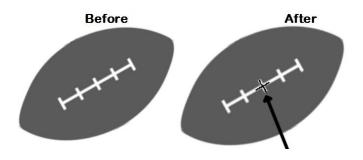|		
	Angle QRS or Angle QRS	∠QRS or ∠SRQ
	Parallel	$\overline{AB} \parallel \overline{GH}$ Line segment A is parallel to lin segment GH
	Perpendicular	$\overline{EF} \perp \overline{JK}$ Line segment EI is perpendicula to line segment

Example Problem and Answer

Label points on the figure and then use those points to label and name representations of each of the following in the table below: ray, line, line segment, and angle.

ray	$\overrightarrow{BC}$
line	$\overleftrightarrow{RS}$
line segment	$\overline{BA}$
angle	∠ABC

Trace at least one pair of lines that are perpendicular.

Trace at least one pair of lines that appear to be parallel.