

Unit 12 - Geometry

Content Area: **Mathematics**
Course(s):
Time Period: **April**
Length: **2-3 weeks**
Status: **Published**

Unit Overview

Unit 12 connects with the theme of Sign Me Up!, which centers around traffic signs, team banners, and other geometric shapes used in the real world. Students will learn the different aspects of geometric figures, and that two-dimensional figures such as quadrilaterals share similar characteristics. When students internalize these similarities, they can transition more easily to sorting three-dimensional figures based on structure.

Essential Questions

"How are different ideas about geometry connected?"

Content

Draw Points, Lines, and Rays

Draw Parallel and Perpendicular Lines

Hands On: Model Angles

Classify Angles

Measure Angles

Draw Angles

Solve Problems with Angles

Triangles

Quadrilaterals

Draw Lines of Symmetry

Problem-Solving Investigation: Make a Model

Skills

Draw points, lines, line segments, and rays and identify these in two-dimensional figures.

Draw parallel, intersecting, and perpendicular lines and identify these in two-dimensional figures.

Understand concepts of angles and angle measurement.

Use concepts of angle measurement to classify angles.

Use a protractor to measure angles to the nearest degree.

Use a protractor to draw angles of a specified measure.

Solve addition and subtraction problems to find unknown angles on a diagram in real-world and mathematical situations.

Classify triangles based on angle measure and describe triangles using their attributes.

Classify quadrilaterals using their attributes.

Identify figures with line symmetry and draw lines of symmetry.

Solve problems by making a model.

Assessments

Online Readiness Quiz

Vocabulary Check

Concept Check - Check My Progress

Chapter Test

Teacher Observation

Lessons/Learning Scenarios

MyMath Grade 4

Chapter 14: Lessons 1-11

Standards

CCSS.Math.Content.4.G.A.1

Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.

CCSS.Math.Content.4.G.A.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.
CCSS.Math.Content.4.G.A.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.
CCSS.Math.Content.4.MD.C.5.a	An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through $\frac{1}{360}$ of a circle is called a “one-degree angle,” and can be used to measure angles.
CCSS.Math.Content.4.MD.C.5.b	An angle that turns through n one-degree angles is said to have an angle measure of n degrees.
CCSS.Math.Content.4.MD.C.6	Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.

Resources

MyMath Grade 4: McGraw-Hill (2012)

- number lines
- colored pencils or markers
- index cards with acute, right, and obtuse angles drawn on them
- protractors
- index cards with different kinds of quadrilaterals drawn on them
- paper hexagons
- square pieces of paper