

06 Geometry

Content Area: **Mathematics**
Course(s):
Time Period: **Week1**
Length: **1 Week**
Status: **Published**

Stage 1: Desired Results

Geometry

Unit Overview/ Rationale

Big Ideas - Students will understand that...

- Area of polygons and circles can be used to solve real world problems.
- Area of basic polygons can be used to find area of irregular regions.
- Drawing geometric figures freehand, by using tools such as rulers and protractors, and by using software can be used to model real world situations.

MA.7.7.G.A.2	Draw (with technology, with ruler and protractor, as well as freehand) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.
MA.7.7.G.B.4	Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.
MA.7.7.G.B.5	Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.
MA.7.7.G.B.6	Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.

Essential Questions - What provocative questions will foster inquiry and transfer of learning

- What are the types of angles and their relationships?

-What is the difference between sketching a geometric figure, drawing a geometric figure, and constructing a geometric figure?

-How do we find area of polygons?

-How do we find area and circumference of circles?

Content - Students will know...

Key vocabulary:

Acute angle, angle, adjacent angles, base of parallelogram, base of triangle, bases of trapezoid, circumference, complementary, congruent angles, diameter, height of a parallelogram, height of a trapezoid, height of a triangle, obtuse angle, pi, radius, right angle, straight angle, supplementary, vertical angles

Skills - Students will be able to...

-Classify angles and find unknown angle measures.

-Draw geometric shapes and analyze the angles and sides of triangles.

-Find the areas of parallelograms, triangles, trapezoids, and figures composed of these shapes.

-Find the circumference and area of circles.

Stage 2: Assessment Evidence

Assessment

Stage 3: Learning Plan

Learning Activities

Resources

Pearson

Algebra 1

c2012,

Chapter 6