Common Core Standards - Resource Page

The resources below have been created to assist teachers' understanding and to aid instruction of this standard.

Domain	Standard: 7.G.6-1 - Solve real-world and mathematical problems involving area of two-dimensional objects composed of triangles, quadrilaterals, and polygons.
Geometry **Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.**	Questions to Focus Learning How can you use rectangles and triangles to find the area of other polygons? Some two-dimensional figures may be composed of more than one polygon. You can determine the area of this type of figure by calculating each polygon separately then adding the total sum of the areas. Student Friendly Objectives *Knowledge Targets* I know how to calculate the area of a triangle. I know how to calculate the area of a quadrilateral. I know how to compose or decompose a polygon. I know how to determine the appropriate operation needed to calculate the area of a polygon composed of more than one two-dimensional shape. *Reasoning Targets* I can calculate the area of two-dimensional figures including triangles and quadrilaterals, and use this information to calculate the area of a polygon. I can calculate the area of a figure that includes more than one two-dimensional figure. Vocabulary base compose decompose height polygon quadrilateral triangle

Teacher Tips

In previous grades, students have studied angles by type according to size: acute, obtuse and right, and their role as an attribute in polygons. Now angles are considered based upon the special relationships that exist among them: supplementary, complementary, vertical and adjacent angles. Provide students the opportunities to explore these relationships first through measuring and finding the patterns among the angles of intersecting lines or within polygons, then utilize the relationships to write and solve equations for multi-step problems.

Real-world and mathematical multi-step problems that require finding area, perimeter, volume, surface area of figures composed of triangles, quadrilaterals, polygons, cubes and right prisms should reflect situations relevant to seventh graders. The computations should make use of formulas and involve whole numbers, fractions, decimals, ratios and various units of measure with same system conversions.

Vertical Progression

8.G.8 - Apply the Pythagorean Theorem to find the distance between two points in a coordinate system.
8.G.9 - Know the formulas for the volumes of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.

The above information and more can be accessed for free on the Wiki-Teacher website.
Direct link for this standard: 7.G.6-1