

## Common Core Standards - Resource Page

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

Domain	Standard: G.MG.1 - Use geometric shapes, their measures, and their properties to describe objects (e.g., modeling a tree trunk or a human torso as a cylinder). *(Modeling Standard)
<p><b><u>Modeling with Geometry</u></b>  <b>Apply geometric concepts in modeling situations</b></p>	<p><u>Questions to Focus Learning</u>            How can one model the real world by using geometric shapes?             Geometric shapes can be used to represent real-world structures.</p> <p><u>Student Friendly Objectives</u>  <i>Knowledge Targets</i></p> <p>I know the relationships between standard shapes in a plane and the faces of actual three-dimensional objects. (e.g., a circle to the face of a clock)            I know the relationships between standard solids in a space and actual three-dimensional objects. (e.g., a right rectangular prism to a box)</p> <p><i>Reasoning Targets</i></p> <p>I can use the relationships between standard shapes in a plane and the faces of three-dimensional objects to approximate the perimeter, circumference, or area of a real-world object.. (e.g., use the area of a trapezoid to approximate the area of Nevada)            I can use the relationships between standard solids in a space and the three-dimensional objects to approximate the volume of a real-world object.</p> <p><u>Vocabulary</u></p> <p>Archimedes' Principle            face            irregular object            solid</p>

Teacher Tips

When studying right triangles, focus on situations well modeled by trigonometric ratios for acute angles.

When studying the area and volume, focus on situations that require relating two- and three-dimensional objects, determining and using volume, and the trigonometry of general triangles.

Measure and average the diameter of a human head to approximate its volume.

Find the change in volume of a liquid, in a known solid, to calculate the volume of an irregular object. (i.e., apply Archimedes' Principle)

When studying circles, focus on situations in which the analysis of circles is required.

Vertical Progression

The above information and more can be accessed for free on the [Wiki-Teacher](#) website.

Direct link for this standard: [G.MG.1](#)