Students who study perimeter, area, and volume are learning to answer the questions

Exactly what size is this object?

For this situation, is it important to know this object's perimeter, area, or volume?

What physical characteristics does this object have?

This unit of study addresses Indiana College & Career Ready Standards as follows:

8.GM.1: Identify, define and describe attributes of three-dimensional geometric objects (right rectangular prisms, cylinders, cones, spheres, and pyramids.) Explore the effects of slicing these objects using appropriate technology and describe the two-dimensional figure that results.

8.GM.2: Solve real-world and other mathematical problems involving volume of cones, spheres, and pyramids and surface area of spheres.

Gaining skills in this unit will enable students to do everyday tasks like pricing fencing for a back yard, stain for a deck, or mulch for a garden. The specific skills in this unit of study include

- calculating perimeters of polygons
- calculating circumference
- calculating areas of rectangles and parallelograms
- calculating areas of triangles and trapezoids
- calculating areas of circles
- classifying space figures
- identifying cross-sectional areas
- calculating surface areas of prisms
- calculating surface areas of pyramids
- calculating surface areas of spheres
- calculating volumes of prisms
- calculating volumes of pyramids
- calculating volumes of spheres