## Lesson: Exploring Surface Area

**Context:** This lesson is designed for a 7th grade class at Berkeley Elementary School. This inclusion class contains 30 students, 5 of which have learning disabilities. The class is co-taught by a 7th grade teacher and a special education collaborator.

**Objective(s):**

- The student will be able to provide a mathematically accurate definition of the terms area; surface area, and rectangular prism.
- Using the nets of several rectangular prisms, the student will be able to construct a rectangular prism and describe how to calculate the surface area.
- The student will be able to use the formula for surface area to determine the surface area of a rectangular prism.
- The student will describe how changing one measured attribute of a rectangular prism affects the calculated surface area.

**SOL Strand:** Geometry and Measurement – Surface Area and Volume

**Related SOL:**

6.10 The student will
d) describe and determine the volume and surface area of a rectangular prism.

7.5 The student will
c) describe how changing one measured attribute of a rectangular prism affects its volume and surface area.

8.7 The student will
b) describe how changing one measured attribute of a figure affects the volume and surface area.

**Estimated class time:** 40 minutes

**Materials and resources**

**For teacher**

- Elmo projector
- Whiteboard
- Class set of Relational GeoSolids (optional)
  - A tool used to demonstrate the relationships between shape, size, and volume. Set includes fourteen clear, hollow, plastic geometric solids [spheres, cones, cubes, rectangles, cylinders, and pyramids]
- Plastic nets that fit the Relational GeoSolids