Math in Focus Singapore Math by Marshall Cavendish

Family Letters and Activities

Chapter 12 Surface Area and Volume of Solids

Dear Family,

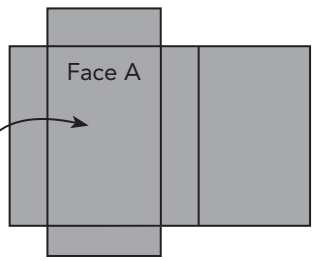
In this chapter, your student will learn how to find the surface area and volume of different solids. Some of the skills your student will practice are:

- *recognizing nets of cubes, prisms, and pyramids*
- *finding surface areas and volumes of prisms*
- *finding surface areas of pyramids*

Activity

You can help your student explore surface area with this activity.

- Use a clean, empty, lightweight cardboard box, such as a cereal box. A box is an example of a rectangular prism, and each side is a *face* of the prism. With your student, mark the faces A through F. Measure the length and width of each face and write the dimensions on the box or a piece of paper.
- Discuss why the box is shaped the way it is. Is it shaped like the product it held? Is it easy to pick up? Do the dimensions make it easy to pack in a carton for shipping?
- Carefully cut the box along the edges so it can lie flat in one piece. If there are any flaps or overlapping tabs, cut them off. This flat version of the box is the *net* of the prism.
- Use a calculator to find the area of each of the six faces of the box and add the areas. This is the surface area of the box.
- Discuss with your student how you found the surface area. Are there are any shortcuts you could use to find the surface area?



Vocabulary to Practice

A **net** is a plane figure that can be folded to make a solid.

In this chapter, the base of a **pyramid** may be a square or a triangle. The other faces of a pyramid are identical isosceles triangles.

You can find the **surface area** of a solid by adding the areas of all of its faces, or by finding the area of its net.

Online Resources

For additional Parent Resources *my.hrw.com*