

# FAMILY MATH

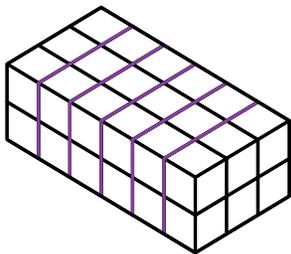
## Volume Concepts

Dear Families,

Your student is exploring the volume of right rectangular prisms. Volume is measured in cubic units such as cubic inches and cubic centimeters. Your student is using unit cubes to build right rectangular prisms and to find the volume. They are learning that although the prism's layers can be broken apart in different ways, the total volume stays the same. Your student is also relating volumes of solids to liquid volumes. They know that volumes of solids and liquid volumes both indicate how much space the solid or liquid takes up. They discover 1 cubic centimeter has a volume of 1 milliliter.

### Key Terms

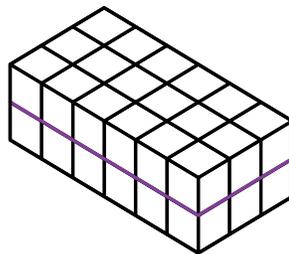
base	right rectangular prism
cubic centimeter	unit cube
cubic inch	volume
cubic unit	



*There are 6 layers.  
Each layer is made up of  
6 unit cubes.*

$$6 \times 6 = 36$$

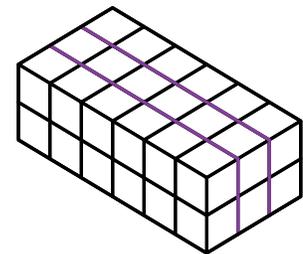
*Volume equals 36 cubic units.*



*There are 2 layers.  
Each layer is made up of  
18 unit cubes.*

$$2 \times 18 = 36$$

*Volume equals 36 cubic units.*



*There are 3 layers.  
Each layer is made up of  
12 unit cubes.*

$$3 \times 12 = 36$$

*Volume equals 36 cubic units.*

## At Home Activities

### Rectangular Prisms Around Us

Observe items throughout the day and ask your student to point out rectangular prisms. Some examples of rectangular prisms may include buildings, refrigerators, dressers, books, or boxes. Talk to your student about the faces or sides on the prism and its edge lengths. Discuss how you could cut the object into different layers to think about cubic units and volume.

### Build Rectangular Prisms

Gather 20 to 30 blocks, paper cubes, dice, sugar cubes, or any other objects that are cube-shaped and are the same size. Ask your student to build different rectangular prisms.

- “Build a rectangular prism that is 2 cubes long, 5 cubes wide, and 3 cubes high.”
- “Build two different rectangular prisms that each have a volume of 12 cubic units.”