Unit **2**

Family Letter

Florida Reveal MATH®

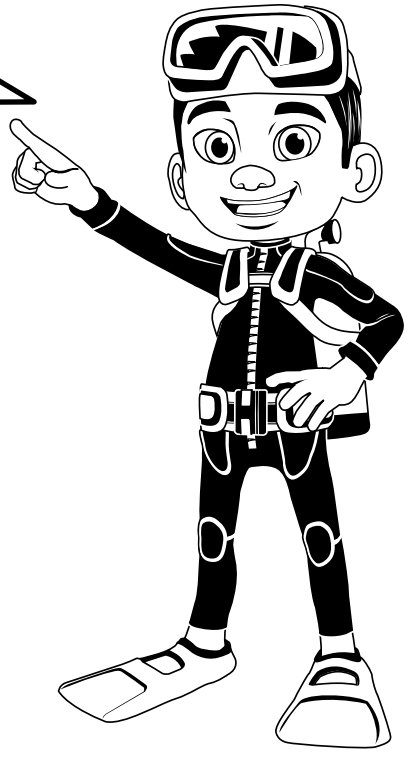
Dear Family,

In this unit, Volume, your child will calculate volume and use volume formulas to solve real-world problems.

STEM Career Kid for this Unit

Hi, I'm Hiro.

I want to be an ocean engineer. I will use math in my job when I calculate depths, map out ocean floors, and find different ratios. I will explain to students how I can use volume in my work.



What math terms will your child use?

Term	Student Understanding
volume	a measurement of space, often used to describe how much a container can hold; measured in cubic units
base	the face that a solid figure sits (rests) on
composite solid figure	a 3-dimensional figure made up of two or more solid figures

Math @ Home Activity

What can your child do at home?

Help your child practice calculating volume by measuring objects that are rectangular prisms and using the dimensions to find the volume of each. You can also have your child draw rectangular prisms and label them with dimensions they have estimated, and then calculate the volume.

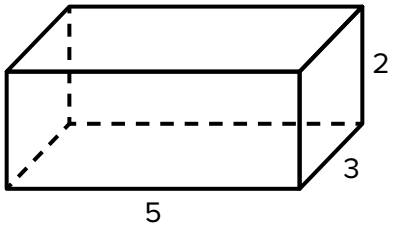
What Will Students Learn in this Unit?

Understanding Volume

Your child will be introduced to finding volume using unit cubes. For example, if a box can be packed with 60 unit cubes, it has a volume of 60 cubic units. Your child will also learn that each unit of measurement is associated with a specific size of unit cube. For example, when using cubic inches, volume is measured using unit cubes that each have an edge length of 1 inch.

Volume of Rectangular Prisms

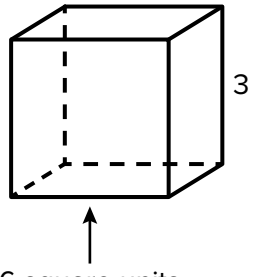
Your child will learn how to determine the volume of rectangular prisms using volume formulas. The volume formulas are deduced by recognizing how the number of unit cubes in each layer (when packing a rectangular prism with unit cubes) is related to the dimensions of the rectangular prism.



$V = l \times w \times h$

$V = 5 \times 3 \times 2$

$V = 30$ cubic units



6 square units

$V = B \times h$

$V = 6 \times 3$

$V = 18$ cubic units

Volume of Composite Figures

Your child will learn how to use what he or she knows about the volume of rectangular prisms to find the volume of composite figures. The composite figure can be split, or decomposed, into two or more rectangular prisms, and the volume of each rectangular prism can be calculated using a volume formula. The total volume of the composite figure is equal to the sum of the volumes of the rectangular prisms.

Real-World Problems Involving Volume

Your child will solve real-world problems using volume and dimensions. A missing dimension can be found by substituting the values of the known dimensions into a volume formula and solving for the unknown value. Your child will also learn how to compare objects by using the volumes. For example, your child could determine that a tub with the dimensions 4 inches by 5 inches by 3 inches (volume of 60 cubic inches) can hold more water than a tub with the dimensions 6 inches by 2 inches by 3 inches (volume of 36 cubic inches) comparing the volume of each tub.