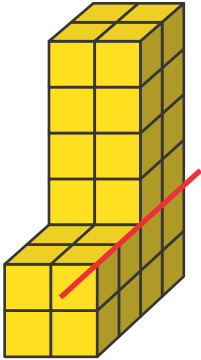# About the Mathematics in This Unit

Dear Family,

Our class is starting a new mathematics unit about geometry and measurement called *Prisms and Solids*. During this unit, students study volume—the amount of space a 3-D object occupies. They use paper boxes and cubes to develop a strategy for finding the volume of any rectangular prism. Students also find the volume of solids composed of rectangular prisms. They also learn to apply the formulas for volume ($V = l \times w \times h$ and $V = b \times h$) to find volume. Throughout the unit, students work toward these goals:

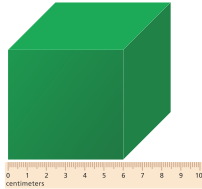| Benchmarks/Goals	Examples
Find the volume of rectangular prisms, including the use of volume formulas.	The prism is 5 units by 2 units by 3 units. What is the volume? $V = l \times w \times h$ $V = 5 \times 2 \times 3 = 10 \times 3 = 30$ The volume is 30 cubic units.
Find the volume of a solid composed of two rectangular prisms.	Top prism: base $= 2 \times 2 = 4$ height $= 4$ volume $= 16$ cubic units Bottom prism: base $= 2 \times 4 = 8$ height $= 2$ volume $= 16$ cubic units Volume of solid is 32 cubic units.

About the Mathematics in This Unit

Benchmarks/Goals	Examples
Use standard units to measure volume.	What is the volume of the cube? All the edges of the cube are the same length: 6 cm. The base of the cube is 6×6, so 36 centimeter cubes would fit on the bottom of the box. Since the cube is 6 centimeters high, there are 6 layers in the box. $6 \times 36 = 216$. The volume of the cube is 216 cubic centimeters (216 cm³).

In our math class, students spend time discussing problems in depth and are asked to share their reasoning and solutions. It is important that children solve math problems in ways that make sense to them. At home, encourage your child to explain his or her math thinking to you. Please look for more information and activities about *Prisms and Solids* that will be sent home in the coming weeks.