

**Chapter 8** Volume

Dear Family,

Most families enjoy a movie and popcorn every once in a while. Maybe your family is no different. Have you ever wondered who eats the most popcorn? Maybe all your bowls are the same size, or maybe someone in your family likes to pull the biggest bowl out of the cupboard to fill it with popcorn!

This time, challenge your family to do some math before diving into the popcorn.

What you will need: 2 pieces of paper, tape, popcorn, and a ruler. Make two different cylinders with the two pieces of paper by taping the ends together with minimal overlap.



Measure the heights and the diameters of the cylinders you created. Which cylinder do you think holds more popcorn? Or, do you think they hold the same amount?

Experiment by filling the first cylinder with popcorn. Then carefully transfer the popcorn from the first cylinder to the second cylinder. Do they hold the same amount of popcorn? Which cylinder would you rather have your popcorn in while you watch the movie?

In this chapter, your student will learn how to calculate the volumes of cylinders, cones, and spheres. How is it beneficial to you to know the volume of a cylinder?

Think about this as you watch your movie!

<b>Lesson</b>	<b>Learning Target</b>	<b>Success Criteria</b>
8.1 Volumes of Cylinders	Find the volume of a cylinder.	<ul style="list-style-type: none"> <li>• I can use a formula to find the volume of a cylinder.</li> <li>• I can use the formula for the volume of a cylinder to find a missing dimension.</li> </ul>
8.2 Volumes of Cones	Find the volume of a cone.	<ul style="list-style-type: none"> <li>• I can use a formula to find the volume of a cone.</li> <li>• I can use the formula for the volume of a cone to find a missing dimension.</li> </ul>
8.3 Volumes of Spheres	Find the volume of a sphere.	<ul style="list-style-type: none"> <li>• I can use a formula to find the volume of a sphere.</li> <li>• I can use the formula for the volume of a sphere to find the radius.</li> <li>• I can find volumes of composite solids.</li> </ul>