

MOST*

Measuring Volume

Materials

- Liquid measuring cup
- Oddly shaped waterproof object

Volume, or the amount of space an object takes up, can sometimes be figured out by using a mathematical formula or equation. It is harder to do if it is not a standard shape like a square or a cone but there is a way to estimate it using water.

1

Fill up a liquid measuring cup with water to one of the lines. It should be enough water to cover the object you are measuring so if it is smaller you need less water than if it was a larger object. Make sure it is on a flat surface when you do this and use measure with the **meniscus**, or the curved upper surfaces of the water.

2

Place the object in the water and see how much the water level changed. The amount the water level has changed is the approximate volume of the of the object. Volume is usually expressed in cubic centimeters. One milliliter equals one cubic centimeter and one cup is about 236.6 cubic centimeters.

3

The reason this works is because of **displacement**, or the object moving the water out of the way and taking its place. If the object sinks the amount of space it takes up is related to the amount of water it moves out of the way. Therefore, we can use the change in water level to know the volume of the object.

