

# What is Displacement?

Objective: Find the volume of an object without actually measuring the object.

## Vocabulary

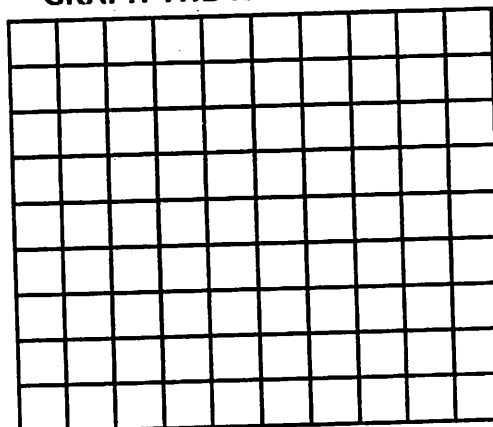
Displace	To move or shift from the usual place or position.
Graduated Cylinder	A tube-like container with markings on it, used for measurement.
Volume	The amount of space occupied by a three-dimensional object.

1. Fill your graduated cylinder with 15 ml of water from the beaker.
2. Record the level of the water in the table below.
3. Carefully drop one of the marbles into the cylinder. Be careful not to let any water splash out of the cylinder!
4. Record the level of the water with one marble in the table below.
5. Carefully drop another marble into the cylinder. Record the level of the water.
6. Continue adding marbles until you have 5 or 6 marbles in the cylinder. Remember to record the water level after you add each marble.
7. Predict what the water level will be if you add another marble.
8. Graph the results of your investigation. First, you'll have to *label* the graph.

RESULTS	
	Water Level (ml)
0 Marbles	
1 Marble	
2 Marbles	
3 Marbles	
4 Marbles	
5 Marbles	
6 Marbles	

Water Level

## GRAPH THE RESULTS HERE



Number of Marbles

## What Happened?

1. What was the volume of water in the graduated cylinder before you placed any marbles in it?
2. Did the volume of the water change during the experiment? Why or why not?
3. What is the volume of one marble?
4. Why does the water level rise as a marble is added to the graduated cylinder?