

# Volume of Irregular Objects



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## Objectives:

- to define the word Meniscus
- to learn how to use a graduated cylinder
- to learn how to find the volume of irregular objects using water displacement

## Materials:

Per lab couple:

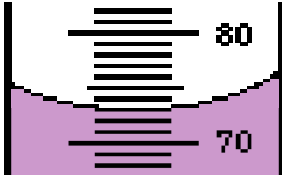
- graduated cylinder
- beaker
- water
- food colouring
- assorted objects such as paper clips, marble, rocks, nails, screws, etc

## Procedure:

1. Each lab couple will have a beaker of coloured water.
2. Place some of the coloured water into your graduated cylinder.
3. Carefully read the **meniscus** and record the volume to the nearest mL. Record in **Table 1**.
4. Place one object into the graduated cylinder and record the volume in **Table 1**.
5. Subtract the Final volume from the initial volume and you will have the volume of that object.
6. Pour the water back into the beaker and retrieve the object.
7. Repeat with a new object.

## Close Up View of Liquid in Graduated Cylinder

||  || The curved surface of the liquid is called a meniscus. As a standard procedure.



always read the level of the liquid at the bottom of the curve

Source:

[http://www.lincoln.smmusd.org/staff/burdettet\\_web/meniscus.html](http://www.lincoln.smmusd.org/staff/burdettet_web/meniscus.html)

## Data:

**Table 1: Volume of Irregular Objects in mL**

	Object # 1	Object # 2	Object #3	Object #4
Starting Volume mL				
Ending Volume mL				
Volume of Object				

## Analysis/Results:

1. What is a meniscus?
2. Why is it important to keep the graduated cylinder on a flat surface when reading the meniscus?
3. How does water displacement work when finding the volume of an irregular object?
4. Why do you think we used colored water in this lab?
5. What object had the most volume? \_\_\_\_\_ with \_\_\_\_\_ mL
6. Least volume? \_\_\_\_\_ with \_\_\_\_\_ mL

## Conclusion

2-3 sentences on what you learned.

