

**Directions:** Rotate to the following laboratory stations and perform the task described. Be sure to follow safety guidelines.

## Finding Mass

Which is larger? Choose one answer for each pair.

- A. 2 kilograms or 1500 grams of salt
- B. 11 milligrams or 11 kilograms of flour
- C. 1300 milligrams or 1 gram of sugar

Find the mass of three objects using the triple-beam balance. Objects could include pennies, popcorn, seeds, screws, washers, or M&Ms.

- 1. Place the piece of filter paper on the pan. Then place item(s) on top of paper.
- 2. Slide the largest weight rider to the right until the arm drops below the line and then move it back one notch.
- 3. Repeat this process with the middle weight rider. When the arm moves below the line, back it up one groove.
- 4. Slide the smallest weight rider on the front beam until the scale lines match up.
- 5. Add the amounts on each beam to find the total mass to the nearest tenth of a gram. [hundreds + tens + tenths = total mass]

Object	Mass (g)

6. Record the mass on the data table.

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- 7. Turn balance on.
- 8. Place the piece of filter paper on the pan.
- 9. Tare (reset) the balance to 0.
- 10. Place object(s) on the paper.

11. Record the mass on the data table.

Object	Mass (g)

## **Finding Volume**

Which is larger? Choose one answer for each pair.

- A. 2 quarts or 2 pints of milk
- B. 1 liter or 1 gallon of tea
- C. 10 ounces or 10 milliliters of vegetable oil

Answer the following questions.

1. What instrument will we use to find liquid volume?

2. What is the name of the curve you see at the top of a liquid in a cylinder?

3. What is the volume of liquid in each cylinder?

Liquid	Volume (mL)

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4. What formula do we use to find the volume of regular objects? Volume = \_\_\_\_\_ × \_\_\_\_\_ × \_\_\_\_\_

5. What is the volume of the cube sample?

\_\_\_\_\_×\_\_\_\_×\_\_\_\_=\_\_\_\_ 6. How do we find the volume of an irregular object using a graduated cylinder?

7. What is the volume of the rock?

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