

Topic: Identifying and Reading Lab Equipment

Teacher Informaiton

Time Allowance

45 min.

Background

Students will test meteoroid samples and plant samples to make sure they are safe for use. Testing these samples requires using several pieces of basic lab equipment. Students will practice reading basic laboratory equipment and recording data on a data log sheet similar to what will be used during their mission at the Challenger Learning Center.

Materials

6 graduated cylinders

6 beakers

electronic balance

rulers

6 general items to be massed (pencil, paper clip, scissors, etc...)

Preparations

1. Prior to students arrival, set up stations according to the list below:

Station 1	graduated cylinders
Station 2	electronic balance
Station 3	beakers
Station 4	rulers
2. Fill graduated cylinders and beakers with varying levels of water and label them A-F. (You can use food coloring to color the water to make it easier to see.)
3. Create an answer key.
4. Divide Students into pairs or have them work individually.
5. Students should rotate through the stations recording their findings and data.

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Student Worksheet

Read the following

You will rotate from station to station in order to record the necessary data.

Station 1

1. Draw a picture of a graduated cylinder.

2. Read the volume of the following graduated cylinders. Label you answers with mL for milliliters. Example: 10 mL
 - A. _____
 - B. _____
 - C. _____
 - D. _____
 - E. _____
 - F. _____

Station 2

3. Draw a picture of an electronic balance.

4. Find the mass of the items. Label you answers with g for grams. Example: 10 g
 - A. _____
 - B. _____
 - C. _____
 - D. _____
 - E. _____
 - F. _____

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Student Worksheet (continued)

Station 3

5. Draw a picture of a beaker.

6. Read the volume of the following beakers. Label you answers with mL for milliliters. Example: 10 mL

A. _____ B. _____ C. _____

D. _____ E. _____ F. _____

Station 4

7. Draw a picture of a ruler.

8. Measure the following items in both inches and centimeters. Label answers " for inches and cm for centimeters. Example 11" and 28 cm.

Floor tile _____

Brick _____

Notebook _____

File Cabinet _____

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Student Worksheet (continued)

Questions

1. Why is it important to label each answer with its corresponding form of measurement?

2. List some things you would measure with a graduated cylinder.

3. List some things you would measure with a beaker.

4. Why would a scientist use a graduated cylinder instead of beaker?

5. Why do astronauts take measurement readings in centimeters and not inches?
