Science 9

Lab Equipment Activity

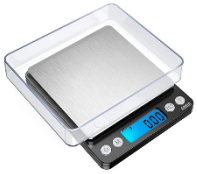
Name:
Date:
Block:

Station 1: Using A Scale

1. What do you think a scale is used to measure? _____

2. In Canada, the SI unit **grams (g)** is used to measure mass. In order to change the unit on your scale to the one you want, you will need to press the '**M**' or the '**Unit**' button on the scale.

3. List all of the unit measurements that the scale can read.



_____

4. Ensure that the scale displays '**g**' as your unit.

5. **Before** you measure the mass of the provided object, what *should* your scale read?

6. Hit the '**tare/zero**' button on your scale so that it reads **0.00 g**.

7. Pick up the provided object and place it on the scale. The mass of the object is _____ .

8. At times, certain chemicals in the form of a powder or a liquid require the use of a container in order to measure its mass.

9. To measure the mass of a powder, you must use a weigh boat to hold the powdered chemical. Place the weigh boat on the scale and hit the '**tare/zero**' button so that it reads **0.00 g.** Place two scoops of the chemical into the weigh boat. The mass of the chemical is _____ .

10. Remove the weigh boat and pour the chemical back into its original container.

11. To measure the mass of a liquid, we will use an empty beaker to hold the liquid. Place an empty beaker onto the scale and press the '**tare/zero**' button so that the scale reads **0.00 g**.

12. Using a **graduated cylinder**, measure out 80.0 mL of the liquid. Pour the liquid into the empty beaker. The mass of the liquid is _____ .

13. Remove the beaker and pour the liquid back into its original container.

14. Turn off the scale.

Station 2: Taking Qualitative Observations

***Safety:** For this station, be sure that safety goggles are on AT ALL TIMES. Be sure to avoid contact with chemical solutions with eyes and all body tissues.

1. Put on a pair of **safety goggles**.
2. For each of the liquids in the beakers, make **2 qualitative observations**:

Liquid A	Liquid B	Liquid C
•	•	•
•	•	•

3. Using the **eye dropper**, place 3 – 5 drops of each liquid into separate test tubes. (Make sure that eye droppers are placed back in the original beaker)
4. Place 1 drop of Bromthymol Blue into each of the test tubes.
5. Write down 2 **qualitative observations** for each of the following reactions:

Liquid A	Liquid B	Liquid C
•	•	•
•	•	•

6. Empty the liquids in the test tubes into the sink with lots of running water. Place the test tubes upside down on a paper towel to dry.

Station 3: Taking Quantitative Observations

***Safety:** For this station, be sure that safety goggles are on AT ALL TIMES. Be sure to avoid contact with chemical solutions with eyes and all body tissues.

1. Put on a pair of **safety goggles**.
2. Using a **graduated cylinder**, measure out EXACTLY 50.0 mL of cold water. Then pour the water into the labelled beaker.
3. Using a **graduated cylinder**, measure out EXACTLY 50.0 mL of hot water. Then pour the water into the labelled beaker.
4. Using the materials provided, make 3 **quantitative observations** for each liquid.

Cold Water	Hot Water
•	•
•	•
•	•

5. Pour the hot and cold water together into an empty beaker.
6. Make 2 more **quantitative observations** for the resultant mixture.

Resultant Mixture
•
•

7. Pour out the liquids down the sink.
8. Remove safety goggles.

Station 4: Identifying Lab Equipment

Using the provided equipment on the table, match the equipment with the names below:

_____ 1. Beaker

_____ 2. Thermometer

_____ 3. Erlenmeyer flask

_____ 4. Hot plate

_____ 5. Test tube

_____ 6. Test tube rack

_____ 7. Scale

_____ 8. Graduated cylinder

_____ 9. Eyedropper

_____ 10. Safety glasses

_____ 11. Bunsen burner

_____ 12. Scoopula

_____ 13. Stir rod

_____ 14. Funnel

Identify which of the following equipment is used for each of the following scenarios:

1. To protect your eyes. _____
2. To measure the temperature of a liquid. _____
3. For approximate measurement of a liquid. _____
4. For more accurate measurement of a liquid _____
5. To measure the mass of a substance. _____
6. To hold a test tube. _____
7. To transfer small amounts of liquid from one container to another. _____
8. To stir liquids. _____
9. To scoop solids. _____
10. To transfer liquids into a container with a small opening _____