

Equipment In The Lab!



Name:
Date:
Block:

Station 1: Using A Scale

1. What do you think a scale is used to measure?
2. In the picture to the right, circle and label the “**on/off**” button.
3. Turn **on** the scale. What does the screen display? _____
4. On the bottom right of the screen, what is the **unit** displayed? Circle one of the following:
 ct oz lb g
5. In Canada, the SI Unit **grams (g)** is used to measure mass. In the picture to the right, circle and label the button used to change the **unit** to grams.
6. Ensure that the scale displays “**g**” as your unit.
7. **Before** you measure the mass of the provided object, what *should* your scale read?

8. Hit the “**tare/zero**” button on your scale so that it reads **0.0 g**.
9. Pick up the provided object and place on the scale. The mass of the object is _____.
10. Turn off the scale.



Station 2: Determining Mass By Subtraction

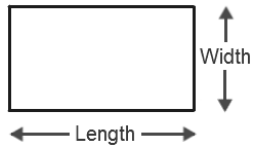
1. Turn **on** and **tare/zero** the scale provided. Ensure that the scale reads **0.0 g**.
2. Take an **empty** beaker and measure the mass. **Record** the mass in the data table below.
3. Carefully pour *approximately* 20 mL of the provided chemical into the beaker.
4. Measure the mass of the beaker with the chemical. **Record** the mass in the data table below.
5. Using **subtraction**, what is the mass of 20 mL of the chemical? **Record** your answer in the data table below.
6. Carefully return the chemical to the waste bucket and turn off the scale.

Data Table

| | |
|------------------------------|--|
| Mass of Empty Beaker | |
| Mass of Beaker with Chemical | |
| Mass of Chemical | |

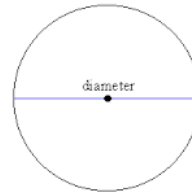
Station 3: Using A Ruler

1. Measure the width and length of the rectangle below to **one decimal place**. What unit should be recorded?



Width: _____

Length: _____



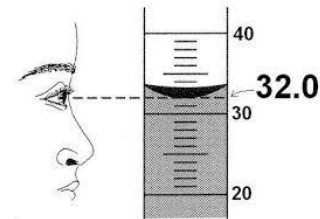
Diameter: _____

2. There are three objects at your stations. **Measure** the dimensions of each item. Make sure to include **proper units**!

| Metal strip | Circular mirror | Wooden Block |
|---------------|------------------|---------------|
| Width: _____ | Diameter: _____ | Width: _____ |
| Length: _____ | Thickness: _____ | Length: _____ |
| | | Height: _____ |

Station 4: Measuring Volume

1. Observe the picture to the right. The curved line is called the **meniscus**. The reading must be taken from the **bottom** of the meniscus.



2. What **unit** should the data be recorded in? Circle one of the following.

mL kg g km

3. Take the reading of the following to **one decimal place**. Make sure to include **proper units**!

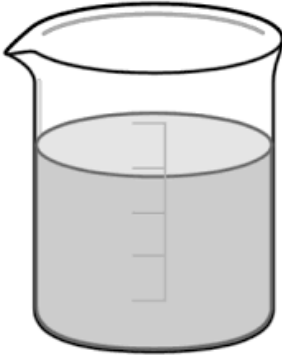

| | | |
|---------------|---------------|---------------|
| | | |
| Volume: _____ | Volume: _____ | Volume: _____ |

4. There are three graduated cylinders at your station. Take the reading of each one to **one decimal place**. Make sure to include **proper units**!

| | |
|-----------------------|--|
| Graduated Cylinder #1 | |
| Graduated Cylinder #2 | |
| Graduated Cylinder #3 | |

Station 5: Using A Thermometer

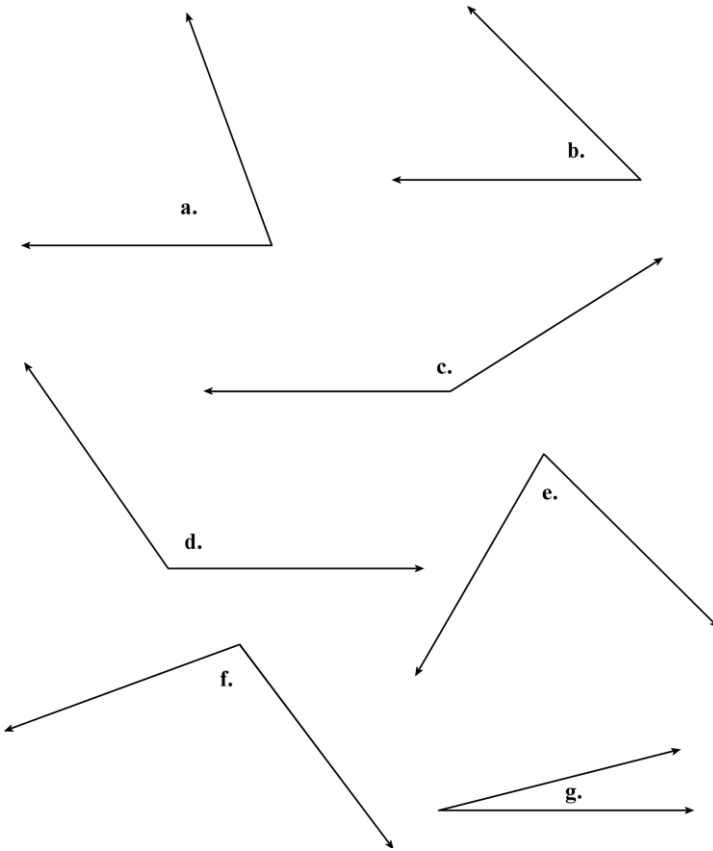
1. There are two beakers at your station. **Label** the beakers A and B.
2. Fill one beaker with cold water from the tap and the other beaker with hot water from the kettle. **Label** which beaker is cold and hot **in the table below**.
3. Take the thermometer and put it in the cold beaker. Record the temperature in the table below.
4. Take the thermometer and put it in the hot beaker. Record the temperature in the table below.
5. Add a drop of food colouring in each beaker. Wait for approximately **1 minute**.
6. After waiting for 1 minute, draw what you observe in the beaker in the table below.
7. Write down any changes you observed over the 1 minute in the table below.

| <p style="text-align: center;">Beaker A</p> <p style="text-align: center;">_____ water</p> <p style="text-align: center;">Temperature: _____ °C</p> | <p style="text-align: center;">Beaker B</p> <p style="text-align: center;">_____ water</p> <p style="text-align: center;">Temperature: _____ °C</p> |
|--|--|
|  |  |
| <p>Observations:</p> <p>-</p> <p>-</p> <p>-</p> | <p>Observations:</p> <p>-</p> <p>-</p> <p>-</p> |

8. Pour all the water from the beaker carefully down the sink.

Station 6: Measuring Angles

Using the provided protractor on the table, measure the following angles:



- a. _____
- b. _____
- c. _____
- d. _____
- e. _____
- f. _____
- g. _____

Station 7: Mix and Match

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

- | | |
|---------------------------|-----------------------------|
| _____ 1. Beaker | _____ 8. Graduated cylinder |
| _____ 2. Thermometer | _____ 9. Eyedropper |
| _____ 3. Erlenmeyer flask | _____ 10. Safety glasses |
| _____ 4. Hot plate | _____ 11. Bunsen burner |
| _____ 5. Test tube | _____ 12. Scoopula |
| _____ 6. Test tube rack | _____ 13. Stir rod |
| _____ 7. Scale | _____ 14. Funnel |

Station 8: Scenarios

- | | |
|---------------------|-----------------------|
| a) Beaker | h) Graduated cylinder |
| b) Thermometer | i) Eyedropper |
| c) Erlenmeyer flask | j) Safety glasses |
| d) Hot plate | k) Bunsen burner |
| e) Test tube | l) Scoopula |
| f) Test tube rack | m) Stir rod |
| g) Scale | n) Funnel |

This piece of equipment is used...

_____ 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.