

### Lab Skills Activity

Using the tools at each station, complete the questions below:

#### A. Cleaning glassware

When beginning any lab – you must assume that the glassware is not sufficiently clean. You must begin every lab by cleaning the glassware with soap and rinsing three times with tap water, and then three times with de-ionized water. Dry the glassware using paper.

1. Grab a squirt bottle from the shelf. Fill the bottle with de-ionized water.
2. Choose a 100mL beaker from the rack.
3. Clean the glassware thoroughly using the procedure above.
4. **Show the cleaned glassware to your teacher for approval.**

Approved: \_\_\_\_\_

#### B. Measuring the mass of a sample.

1. Turn on the balance.
2. Press the tare/zero button.
3. Record the mass: \_\_\_\_\_
4. Place the clean dry beaker (the one you cleaned) on the balance.
5. Record the mass: \_\_\_\_\_
6. Press the tare/zero button.
7. Record the mass: \_\_\_\_\_
8. Measure out 0.5g of the white solid.
9. Record the mass: \_\_\_\_\_
10. Discard the sample into the waste beaker.
11. Clean your glassware.
12. Turn the balance off.



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#### C. Find the volume of the two samples.

1. **Do not touch the glassware.** Only record the volume of each sample.

Sample 1: \_\_\_\_\_

Sample 2: \_\_\_\_\_

#### D. Lighting a Bunsen burner

1. Ensure that you have a clean and uncluttered working area.
2. Make sure there are no cracks in the gas tube. To do this, gently squeeze the tube all the way, and see if any cracks appear.
3. Ensure that all of your equipment is clean and is in good working order. Connect the gas tube to the gas outlet. Give it a safety tug, to make sure the tubing doesn't come off easily. Make sure that the collar at the base of the cylinder is turned so that it is closed. This is to ensure that the flame is coolest when you first turn it on. Close the air-hole of the Bunsen burner.
4. Turn the gas on.
5. Bring the flint striker to the chimney. Squeeze the striker. Try three times, if the flame is not lit, turn off the gas valve. Repeat steps 4 and 5 until the flame is lit.
6. Twist the cylinder so that the flame changes to the hotter non-luminous blue flame. Make sure you see the double cone

Approved: \_\_\_\_\_

#### E. Making Thorough Observations

In order to determine whether a chemical change has taken place thorough observations must be taken of the reactants and products. Each observation must include a minimum of three descriptors (For example: state, colour and clarity).

1. Record a thorough description of three substances at this station.

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_