

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Form and Function Lab

### Introduction

Chemistry courses are designed with many laboratory experiments. Before you can conduct any of these experiments, you must become familiar with some of the basic lab equipment and techniques you will be using throughout the year. This lab is designed to do this.

### Procedure

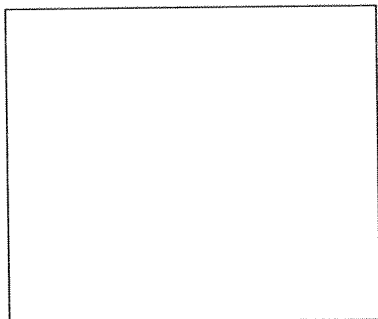
1. Sketch the Erlenmeyer flask and a Florence flask.

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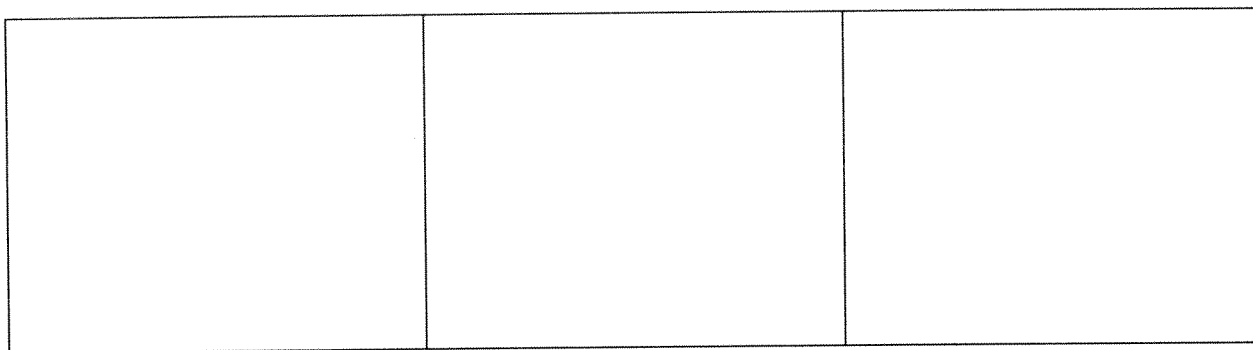
2. Examine an Erlenmeyer flask and a Florence flask then answer the following questions:

- a. How can you tell them apart?
  
  
  
  
  
  
  
  
  
  
- b. Of what type of glass are they composed?
  
  
  
  
  
  
  
  
  
  
- c. What would they be used for?
  
  
  
  
  
  
  
  
  
  
- d. What role would the sloped sides play?

3. Sketch a 250 mL beaker at your desk. Examine and compare the composition and form of a beaker to that of the flasks.



4. Sketch and examine a crucible and cover, evaporating dish, and watch glass.

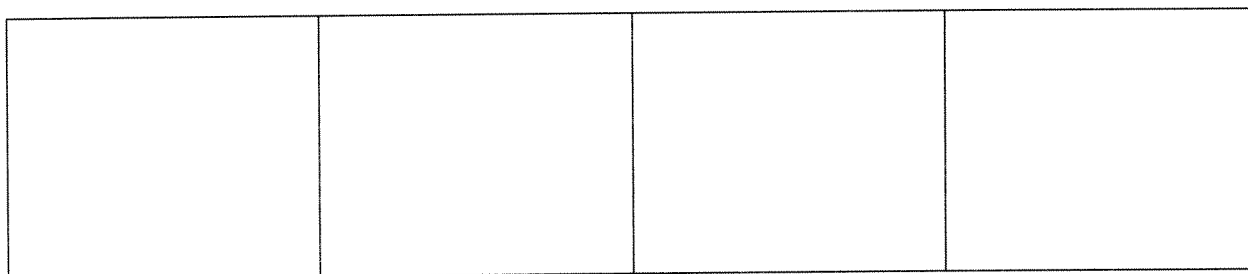


a. Of what material are the crucible and evaporating dish made?

b. Could you heat materials to high temperatures with these containers? Why or why not?

c. How does the shape of the crucible differ from the evaporating dish? When would it be more appropriate to use an evaporating dish rather than a crucible?

4. Sketch and examine the ring stand, wire gauze, iron ring, and clay triangle.

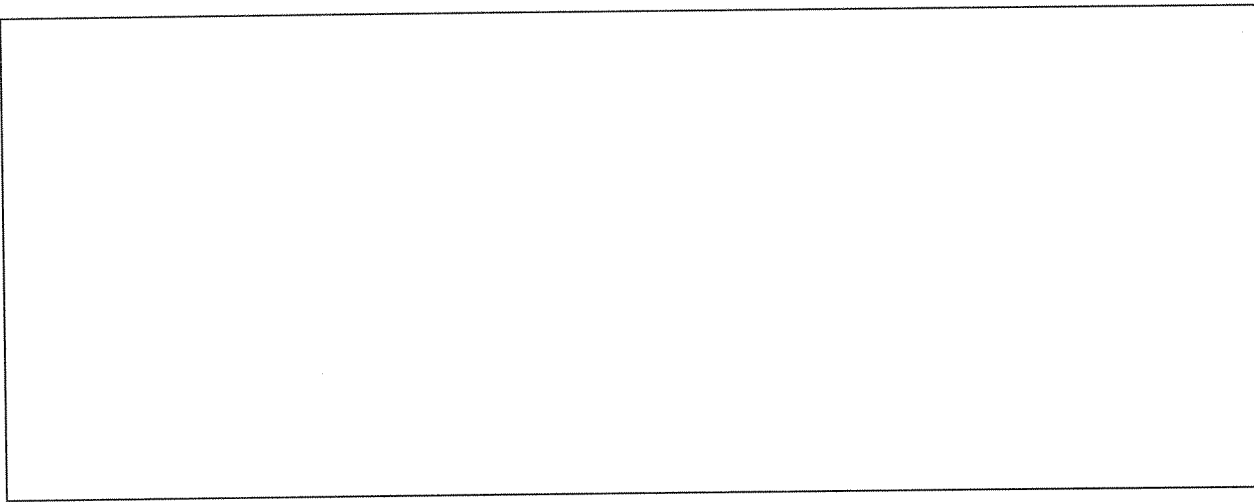


a. How would a crucible be supported with these pieces?

b. How would you support a beaker?

5. Examine a Bunsen burner.

a. Sketch the Bunsen burner and label the following parts: gas control, burner tube, air vent, and gas inlet.



b. Using the directions below, practice lighting the Bunsen burner.

1. Connect the burner to the gas supply with the rubber tubing.

2. Close the air vents.

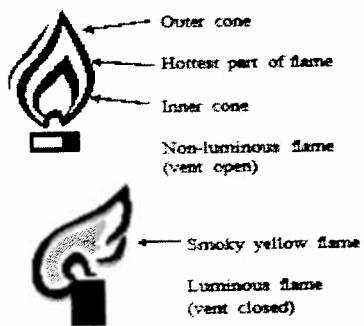
3. Hold the striker at the top of the burner tube and turn on the gas supply. The gas supply is on when the handle is lined up with the rubber tubing.

4. Strike the striker until the burner is lit. **3 attempts MAX!!! after 3 failed attempts allow gases to dissipate for a minute and then you may try again.**

5. Open the air vent slowly to admit more air. Stop when you get a light blue cone-shaped flame.

6. Shut off the gas jet to turn off the Bunsen burner.

c. What is the difference between a luminous and a non-luminous flame? When would each be useful?



6. Having examined basic laboratory equipment, examine sample A and B.

a. List at least four observations of A and 4 observations of B.

A.	B.
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b. Place a small amount of A in a test tube and add 5 ml of water. Did it dissolve? Repeat with B.

A.	B.
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c. Now place a small amount of A on a watch glass and add 5 drops of dilute hydrochloric acid (HCl). Note what happens. Repeat with B.

A	B
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