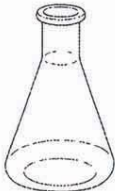
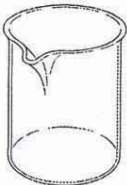
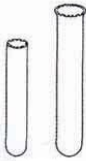
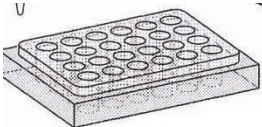


Laboratory Equipment Overview

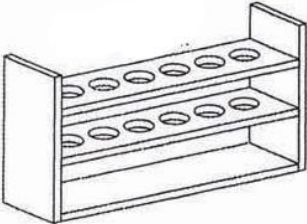


This lab will introduce you to a variety of laboratory equipment and their uses. The equipment is divided into general categories based on function.

PART 1: MIXING AND HOLDING CHEMICALS

1. All of the following are used to hold different amounts of liquids, and can be used as containers for mixing chemicals and observing chemical reactions.
 - a. Label them with their names.
 - b. Rank them from biggest to smallest in terms of the amount of liquid they could hold (1=biggest; 4=smallest)

				
Name of Equipment				
Ranking				

2. Label the following with the names and functions of the equipment. (If you are unsure, ask!)

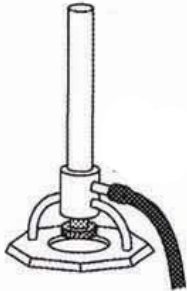

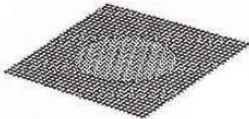
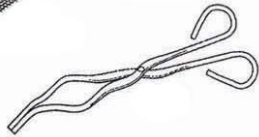
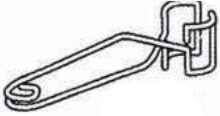
 _____ _____ _____ _____ _____	 _____ _____ _____ _____ _____	 _____ _____ _____ _____ _____
--	--	--

3. The Erlenmeyer flask has a very different shape than a beaker, and yet they hold comparable amounts of liquid.
 - a. What are 2 advantages of the Erlenmeyer flask when observing a chemical reaction?

 - b. When might you use a beaker instead of an Erlenmeyer flask?

PART 2: HEATING

4. Label the following with the names and functions of the equipment. (If you are unsure, ask!)

		
<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>
		
<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>

5. What are two precautions we should take when heating things using glassware? (Hint: look at your Lab Safety Rules.)
6. Look carefully at the hot plate that is on display.
- Other than heating chemicals, what else can the hot plate be used for?
 - Sometimes when students ask for help, they say that they have turned the knob but the hot plate is not heating up. What are they likely doing wrong?





PART 3: SAFETY/CLEANING

Discuss as a class, and then record answers.

7. There are very few labs in this course where a lab coat will be required. Due to the pandemic, they may not be available (because upper Chemistry courses will be prioritized for their use). If we need to conduct a lab that needs a lab coat, but there are none available, what will we do instead?

8. Goggles carry the risk of COVID-19 transmission. What are 2 precautions we will take with goggles to minimize this risk?







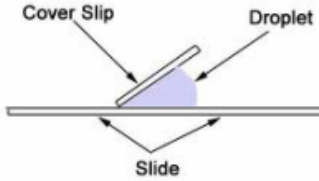
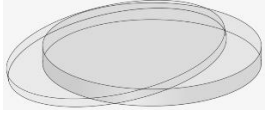
9. Label the following with the names and functions of the equipment. (If you are unsure, ask!)

 <hr/> <hr/>	 <hr/> <hr/>	 <hr/> <hr/>	 <hr/> <hr/>

Fun Fact: The wash bottle can also sometimes be used in experiments to deliver very small squirts of distilled water. Also, wash bottles are fairly multi-purpose: they can hold other chemicals as well which can be useful in cleaning, such as acetone!

PART 4: BIOLOGY

10. Here are some pieces of laboratory equipment used primarily in biology. You are not required to learn these parts (yet), but they are listed here for your information.

 <hr/> <hr/> <p>Tray used to hold and pin down dissection specimens</p>	 <hr/> <p>Blunt (not sharp) dissecting tool used to grasp and pull</p>	 <hr/> <p>Blunt (not sharp) tool used to investigate a dissection specimen</p>	 <hr/> <p>Sharp dissecting tool for cutting; blade often removable</p>
 <hr/> <hr/> <p>Sharp dissecting tool for cutting</p>	 <hr/> <hr/> <p>Views objects too small to be seen with the naked eye</p>	 <hr/> <hr/> <p>Mounts microbes to be viewed under the microscope</p>	 <hr/> <hr/> <p>Used to grow bacteria (usually)</p>