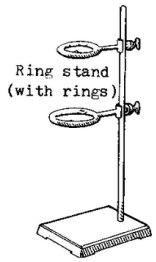
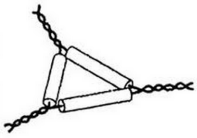
Section 2: Laboratory Equipment and Functions

Study the table below. Be able to identify the name of each piece of equipment, as well as its function or use in the laboratory.

Name	Picture	Use
Ring stand		Supports the bunsen burner, iron ring, pipestem triangle, and other items, often while heating a substance.
Pipestem triangle		Supports the crucible when being heated over an open flame
Evaporating dish		Used to evaporate excess solvents to create a more concentrated solution.
Test tubes		Holds small amounts of liquids for mixing or heating.
Beaker		Holding water (also used to heat liquids)
Erlenmeyer flask		Narrow-mouthed container used to transport, heat, or store substance. Often used when a stopper is required.
Volumetric flask		Flask calibrated to contain a precise volume at a particular temperature. Used for precise dilutions and creating standard solutions.
Watch glass		Keeping liquid contents in a beaker from splattering
Mortar & pestle		Used to grind chemicals to powder

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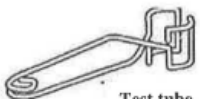
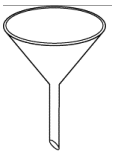
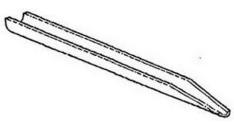
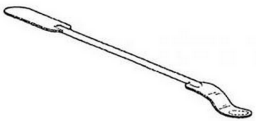
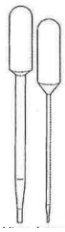
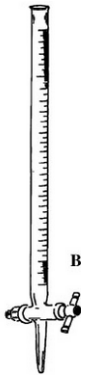
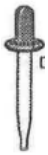
Iron ring		Supports a beaker over a bunsen burner. Wire gauze is usually placed on top of this structure.
Utility clamp		Used to hold a test tube or other piece of equipment in place on a ring stand.
Wire gauze		Suspending glassware over the Bunsen burner
Tongs		Transport a hot beaker; remove lid from crucible.
Triple-beam balance		Obtaining the mass of an object
Test tube clamp		Heating contents in a test tube
Bunsen burner		Heating (flame-safe) contents in the lab
Forceps		Used in dissection to grasp tissues or pick up small items.
File		Used to grind down materials or sharpen items.
Wire brush		Used to clean the inside of test tubes or graduated cylinders
Test tube rack		Holding many test tubes filled with chemicals (or for drying after washing)
Funnel		Used to pour liquids into containers with small openings; also used to hold filter paper
Scoopula		Scooping solids/powders.

Graduated cylinder		Measuring specific amounts of liquids (65 mL)
Spatula		Measuring/removing small amounts of solids or powders (often when obtaining mass)
Wash bottle		Used to wash down specific pieces of equipment with water or keep materials moist.
Micropipets		Used to measure and dispence very small amounts of liquids. (ex. 0.5 mL)
Buret		Measuring specific amounts of liquids (often determining amounts of acids or bases needed) (ex. 13 mL); releasing small amounts of acids or bases into other solutions.
Dropper		Used to obtain small amounts of liquids (not precise)

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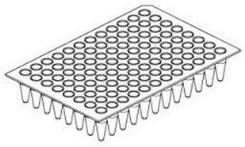
Thermometer		Used to measure temperature
Pipet		Used to measure and dispense small amounts of liquids (ex. 1 mL)
Well plate		Mixing very small amounts of chemicals together and comparing results.
Corks		Used to seal or stop flasks or test tubes.
Hot plate		Used for consistent heat; used to heat substances that may be flammable.
Florence flask		Flask with a round body and flat bottom. Used to hold and heat liquids.

Answer the following questions on a separate sheet of paper. Remember to use the following formatting:

- *If typed, use size 12 Times New Roman font and single spacing.*
- *If handwritten, print your responses neatly.*
- *Leave one line of blank space between each response.*
- *Use the following heading in the top left corner of your response sheet:*

  Student Name
  Pre-AP Biology
  Summer Assignment, Section #
  Date of completion (not the due date)

Section 2 Review Questions:

1. Name 3 pieces of glassware used for heating liquids.
2. Which pieces of equipment are used to obtain precise measurements of liquids?
3. Which pieces of equipment are used for heating other substances?
4. Which pieces of equipment are used for obtaining solids for measuring mass?
5. Identify the difference(s) between tongs and test tube clamps.

Be prepared for a short quiz reviewing laboratory equipment and uses during the first week of school. Some items will be available on display for you to identify.