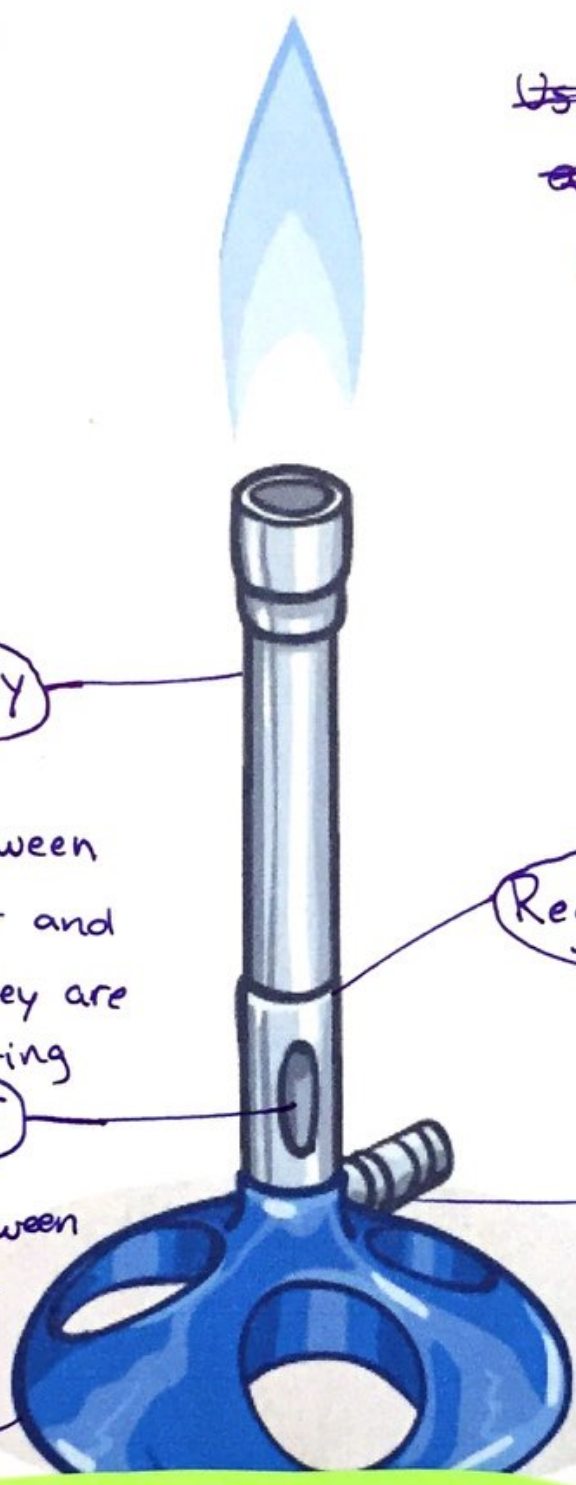


Uses

- Heating
- Sterilization
- Combustion

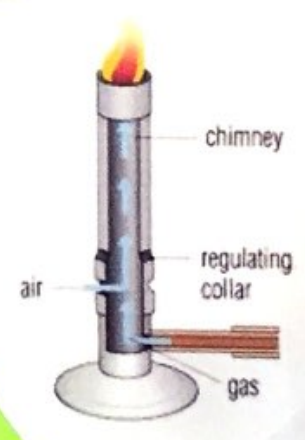
Related items

- ~~Used w/~~ Hot plate
- ~~and~~ Heating mantle
- Meker-Fisher burner
- Teclu burner
- ~~are related items~~



One similarity between the Bunsen burner and Meker-Fisher is they are both used for heating

One difference between them is the Meker-Fisher burner produces multiple, hotter gas flames. It is used when you need something hotter than a bunsen burner



Bunsen Burner

RING STAND

David Washburn
Ava Neijna
Sam Strickland
Amarda Nance

- used to clamp or hold laboratory glassware and other equipment in place, so that it does not fall or come apart.



- A ring stand and test tube rack are similar in that they both hold glassware but a test tube rack is specifically used for test tubes while a ring stand can be used for many pieces of equipment, and with different purposes, including holding things or clamping them.

- A ring stand can be used with beakers and flasks by holding, but it can also be used in conjunction with a bunsen burner for heating those beakers and flasks.



WATCH GLASS

10/10

DEFINITION: a circular concave piece of glass used in chemistry as a surface to evaporate a liquid, to hold solids while being weighed, for heating a small amount of substance and as a cover for a beaker.

A watch glass is similar to a petri dish because they physically look the same and complete the same task, overall. A petri dish is different from a watch glass because a petri dish can hold microorganisms.

A watch glass is commonly used with a beaker to act as a cover to prevent dust or other particles from entering the beaker.



Mia Craig, Tillie Jandrain, Emily Clarke Joyner, Max Cullett

Beaker



10/10

Annie Urish
Vaughn Tol
Lee Sulvian
Lyan Shakra

Erlenmeyer Flask

An Erlenmeyer flask is a device, usually constructed from glass, used to measure liquids, usually in a chemistry or other science laboratory. They range in volume capacity and are characterized by their distinct shape. These flasks are wide at the bottom and taper toward the top. About three-quarters of the way to the top, the tapering ceases and the neck extends straight upward. Erlenmeyer flasks are accurate for measuring to within five percent. The shape of the flask promotes saving the liquids inside because the mouth can easily be fitted with a cork or lid.

Beaker

A beaker, also referred to as a Griffin beaker, is, like an Erlenmeyer flask, a device used to measure liquids. Usually constructed of glass, beakers are mainstays in chemistry and science laboratories. Unlike Erlenmeyer flasks, beakers are cylindrical, with sides that extend straight upward. At the very top of the beaker is a lip that usually extends slightly outward and a pointed spout to make pouring easier. They are available in a range of volume capacities and are accurate for measuring liquids to within five percent.

Uses

Erlenmeyer flasks and beakers serve the same purpose: to measure liquids. Each has a gauge printed on its outside to delineate volume. An experiment by students at Austin Community College in Austin, Texas concluded that beakers are more accurate than flasks by a significant degree. This would suggest that the construction of the flask, including its characteristic shape, makes measuring specific volumes more difficult than the same task is with a beaker, which has a much more conventional shape.

Materials

Erlenmeyer flasks and beakers are typically constructed of glass, especially when they are used in science laboratories. Glass is durable, easily cleaned, and nonreactive. Not all glass is created equal, however. More expensive and higher quality flasks and beakers are made from tempered glass; tempered glass allows for the glass to withstand intense temperature variations without cracking or breaking. Some flasks are available with caps to make storage easier.



Used with: Flask,
dropper, scale, safety
goggles, boiling flames,
and balance.

A beaker is a simple container for stirring, mixing and heating liquids commonly used in many laboratories. Beakers are generally cylindrical in shape, with a flat bottom. Most also have a small spout or beak.

beakers are meant to measure approximate amounts of liquid

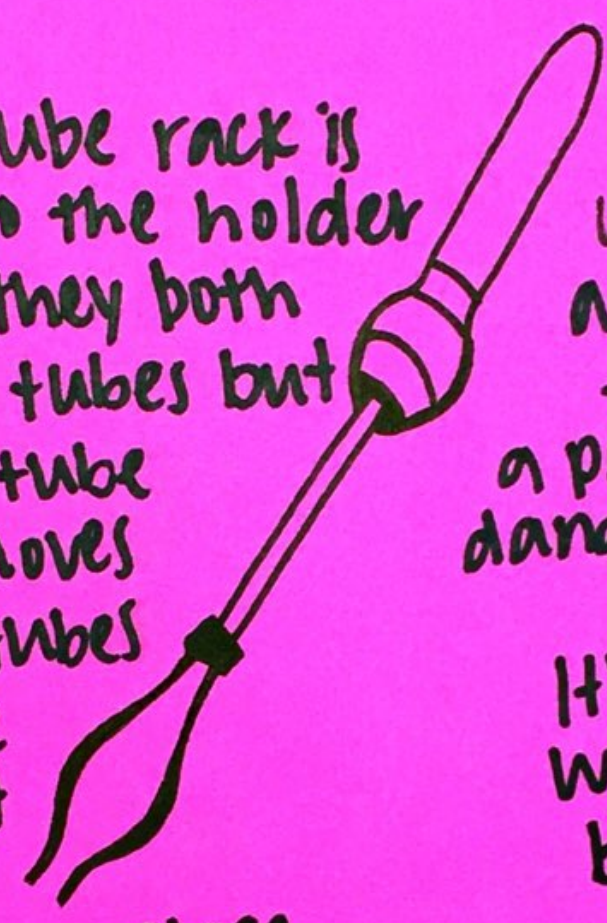
Talley
Carolina

Test tube holder

Dani
Kate

The test tube rack is similar to the holder because they both hold test tubes but the test tube holder moves the test tubes while the rack just keeps them in one place.

It's also similar to tongs because tongs also hold things at a distance

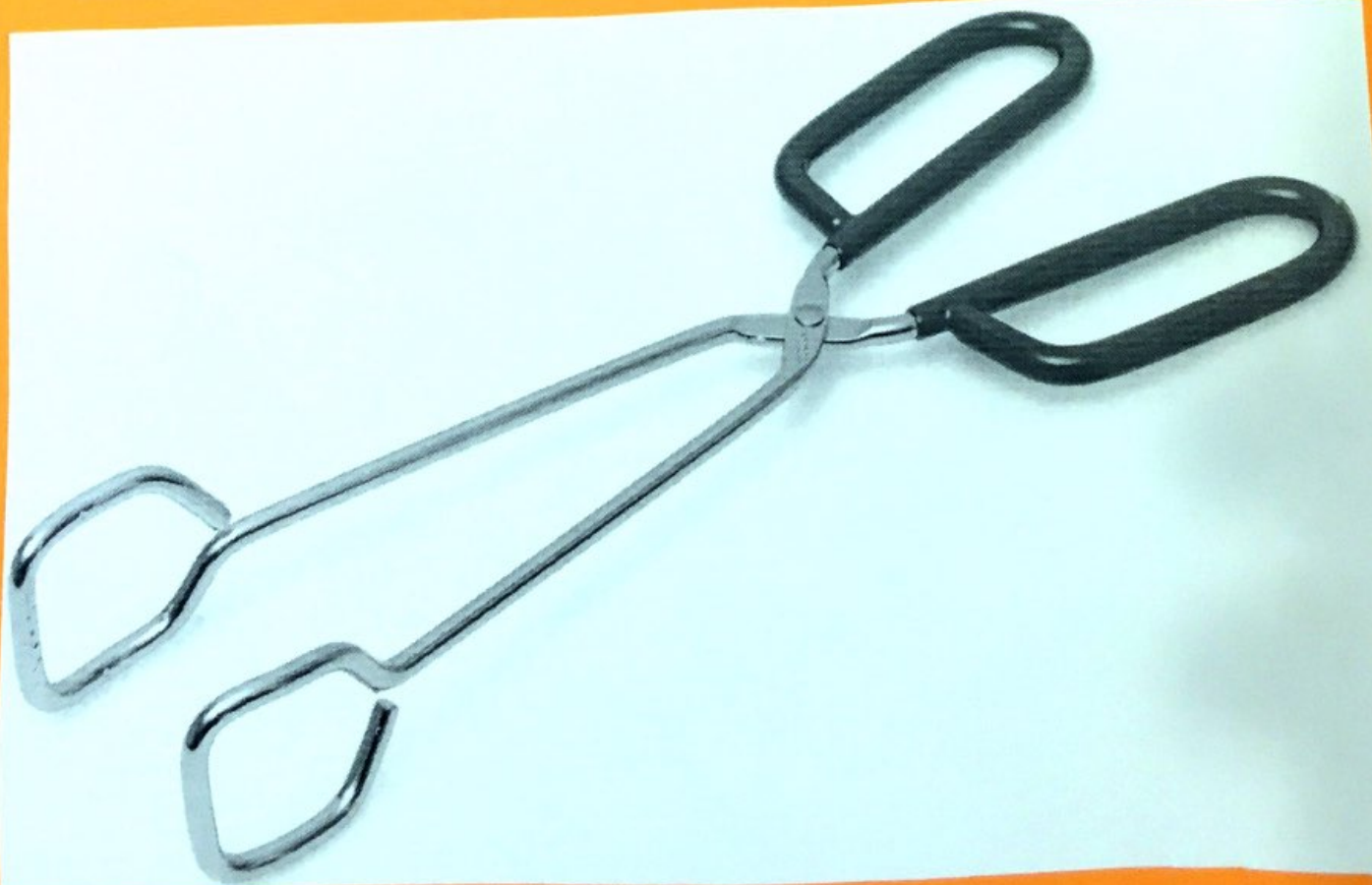


The test tube holder is used to move and hold test tubes & to distance a person from dangerous chemicals

It's commonly used with test tubes, & beakers

Tongs

- Used for lifting and holding things you don't want to touch or for beakers
- Similar to tweezers: both are used to pick things up or out without touching
- The only difference is tweezers are smaller
- Commonly used with beakers, to pick them up.

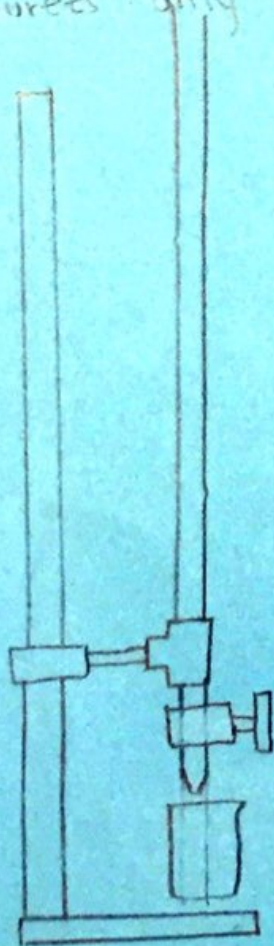


Buret

10/10"

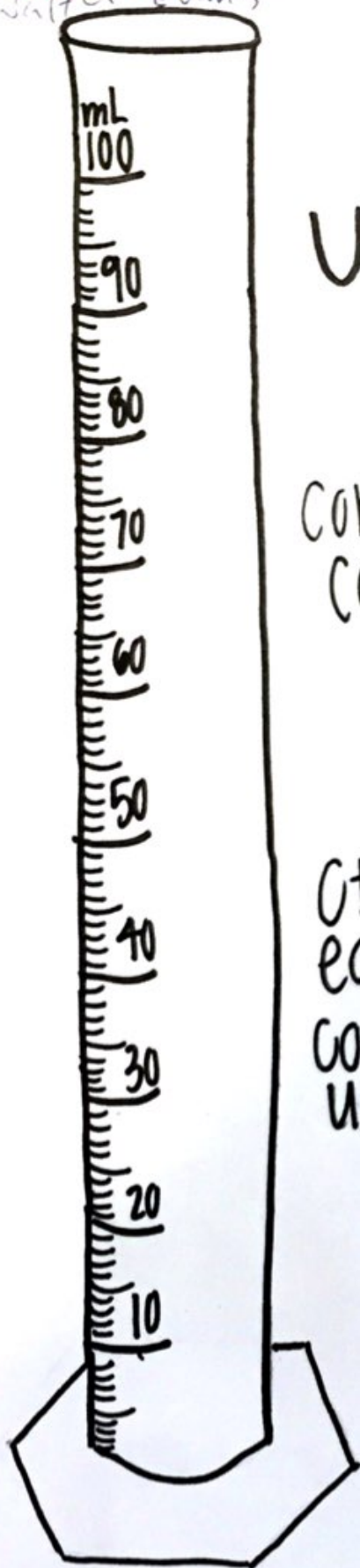
- A buret is used in analytical chemistry for dispensing measured amounts of a chemical solution.
- Other equipment used with burets are the buret clamp to hold the buret in place, flask for catching solutions from the buret tip and a funnel to fill the buret with solution.
- Both the buret and the pipet are used by laboratory analysts to make accurate measurements of fluids. A buret is usually a fixed piece of equipment whereas a pipet is movable. Pipets can pick up and deliver fluids when burets only deliver fluids.

burets are the most precise tool for measuring a specific amount of liquid due to many markings



Group Names:
Ella Burgess
Abby Finah
Nala Brown
Walter Evans

Graduated Cylinder



Use: It is used for measuring liquids

graduated cylinders are more accurate than beakers but less accurate than burets

best tool to use for determining volume of an irregular object

Compare/Contrast

- similar to a ruler because they both are tools used for measuring but it is different because rulers measure length while a graduated cylinder measures volume.

Other equipment commonly

used with: Hydrometer - calculates density of a liquid

The Volumetric Flask

10/100



volumetric flasks are best used to create a specific amount of a solution

- A **Volumetric flask** (also known as a measuring or graduated flask) is a type of laboratory flask used to measure the specific volume of a solution. It is often used in the preparation of solutions when precision is an important factor, as its ability to precisely measure the volume of a substance is vital in correctly preparing a chemical solution. It can also be used to mix a solution.
- A similar piece of equipment is the **Erlenmeyer flask**, a flask used to measure, mix, and boil chemical solutions. The **Volumetric flask** is similar to the **Erlenmeyer flask** in that both can mix chemical solutions relatively easily, and both are used to measure the volume of a given solution. In contrast, the **Volumetric flask** differs from the **Erlenmeyer flask** because it can more precisely measure the volume of a solution, and it can't be used to boil solutions like an **Erlenmeyer flask**.
- **Volumetric flasks** are fairly common in use, and as a result are commonly used with standard lab equipment. They are often used with **beakers** (hold liquids), **Erlenmeyer flasks**, **rubber stoppers** (cover ends equipment), **volumetric pipets** (accurately measures small amounts of liquid), and **bunsen burners** (heats liquids).

EVAPORATING DISH

10/10^u



Evaporating dishes are used to evaporate excess solvents most commonly water to produce a concentrated solution or a solid precipitate of the dissolved substances.

Evaporating Dish vs Crucible and cover.

* Both can be used to hold evaporating solvents but the evaporating dish is used to evaporate excess solvents into the air while the crucible and cover wants it to be contained.

To heat a substance or a solution it is commonly used with a Bunsen burner flame.

Erlenmeyer Flask

Duncan Coffey, Alek Jovanovic,
Sterling Jones, James Cron

Used for storing, mixing, reacting,
and pouring chemicals but not
for accurate measure.

Erlenmeyer Flask

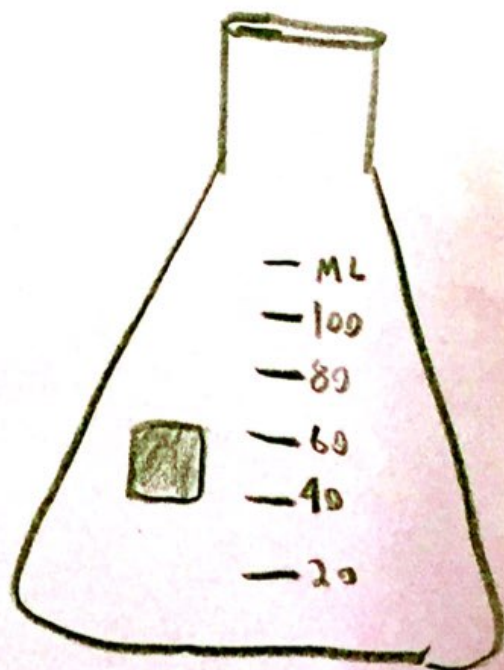
vs.

Beaker

has a flat bottom, a conical
body, and a cylindrical neck
and is used so you can
mix without spilling by
swirling the flask

vs.

cylindrical in shape used
for stirring and heating
liquids as well to pour
liquids with precision



Other equipment used with

Used with almost
anything but most
commonly with Beakers
and spherical flasks