



Tishk International University  
Faculty of Science  
Medical Analysis Department

**Lab. 02**

# LABORATORY EQUIPMENT AND THEIR USES

Practical General Chemistry  
For  
First grade Students



**Test Tube**



**EDTA Tube**



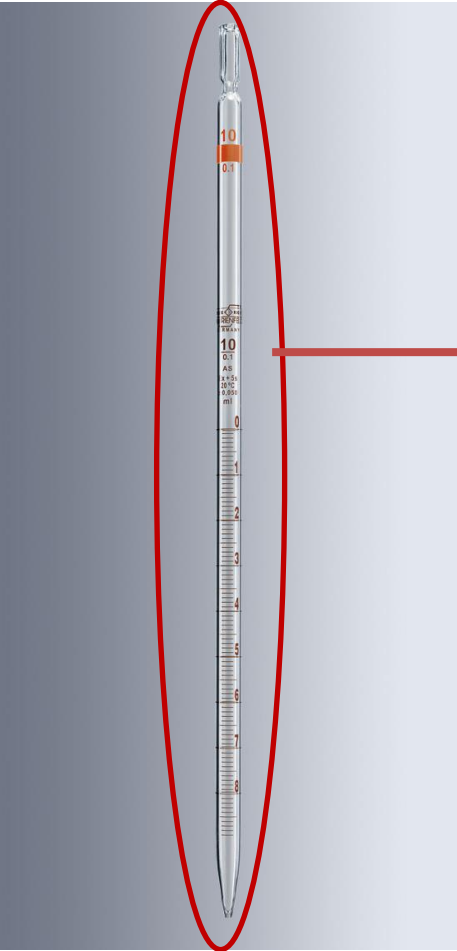
**Gel Tube**



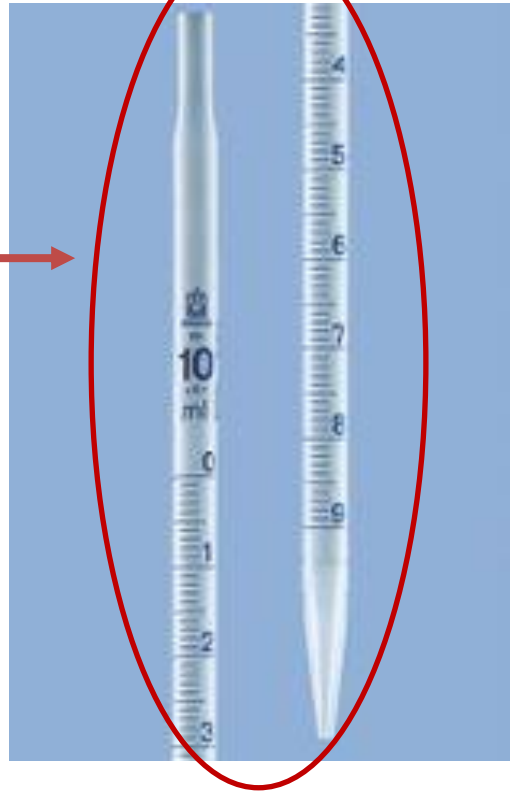
**Test Tube Holder (Rack)**

**Capillary Tube**



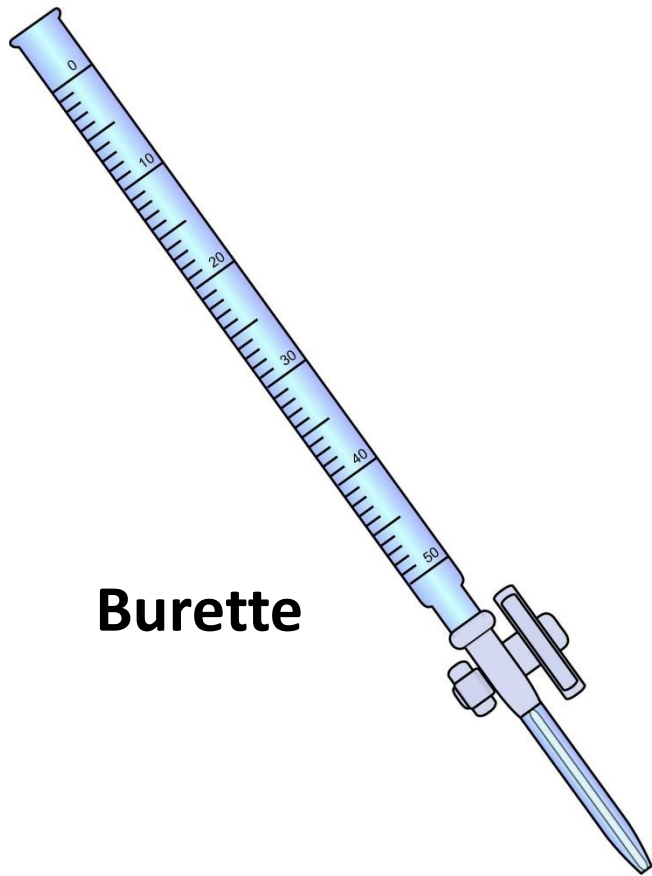


**Graduated Pipette**



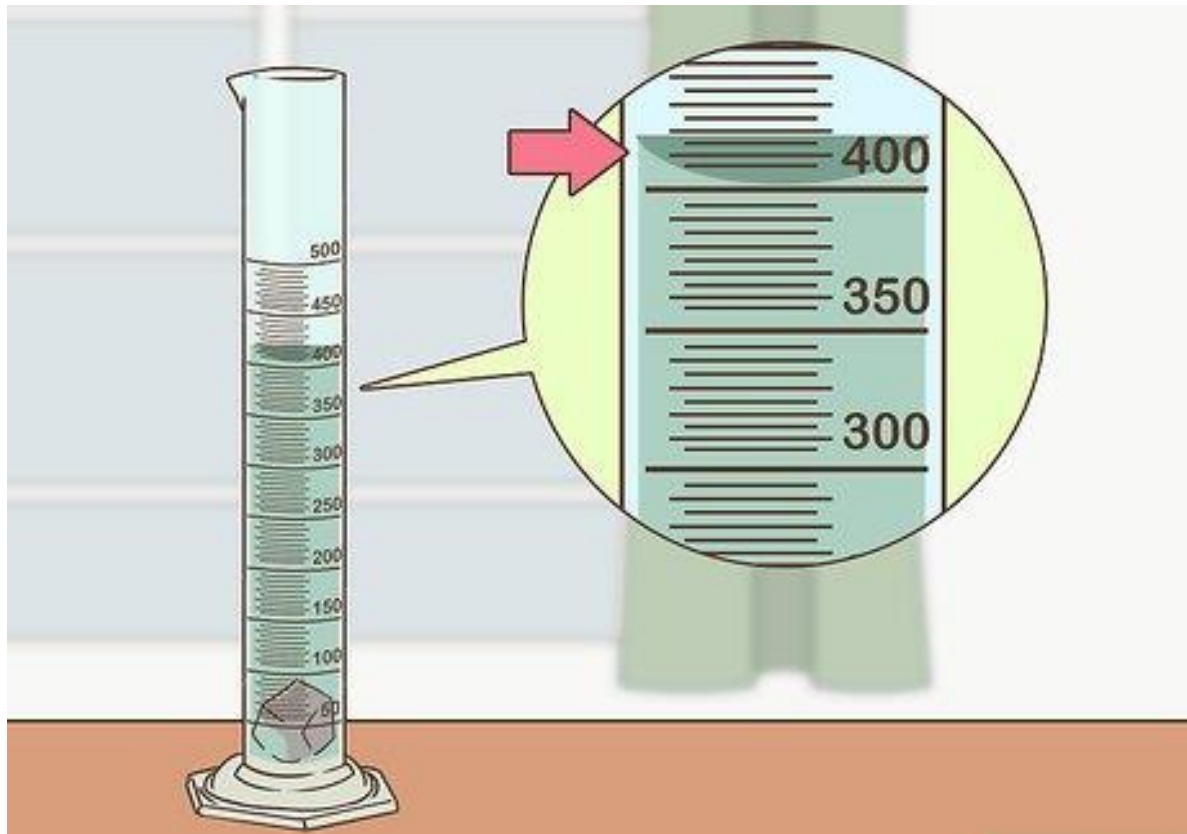
**Disposable Pipette**

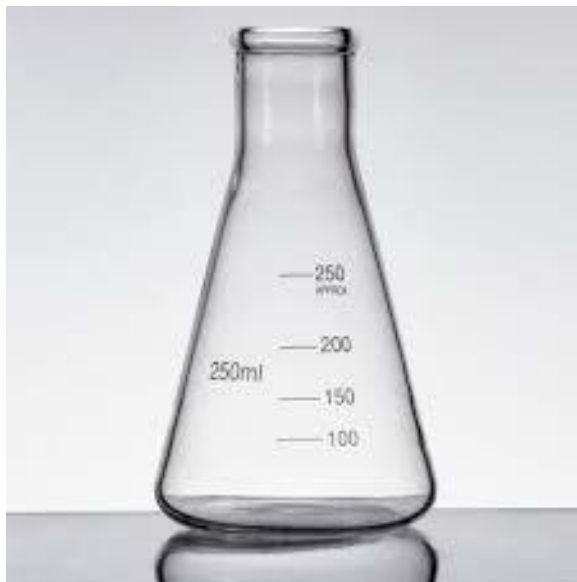




**Burette**

## **Graduated Cylinder**





**Conical Flask**



**Round Bottom Flask**



**Two-Necked  
Round Bottom Flask**



**Volumetric Flask**



**Funnel**



**Beaker**



**Washing  
Bottle**

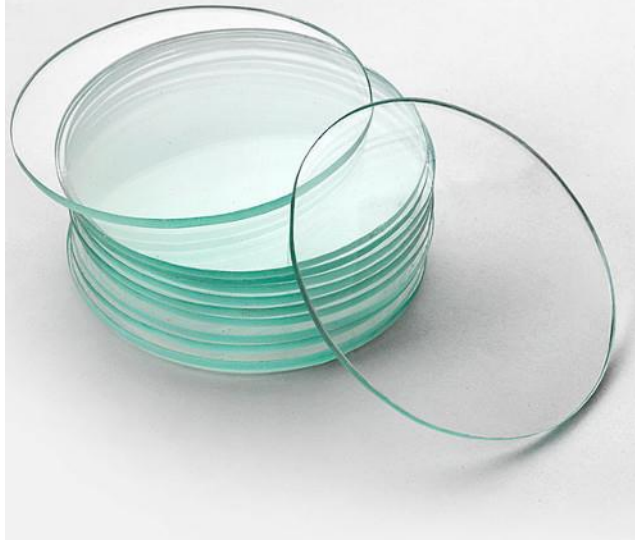


**Buchner  
Funnel**



**Dropper**

**Watch Glass**



**Balance**



**Sensitive Balance**

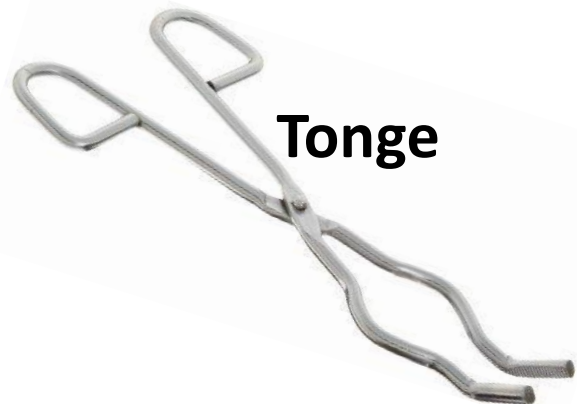




**Stirring Rod**



**Thermometer**



**Tongs**



**Stand and Clamp**



**Separation Funnel**

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**Wire Gauze**



**Tripod**



**Bunsen Burner**



**Crucible**

**Mortar & Pestil**



- Test Tube: used to hold the samples and determine the quality of the samples.
- Pipette: used to transfer accurate amount of liquids from a large to small containers.
- Cylinder: used to transfer accurately large amount of liquids from a large to small containers
- Burette: to add a liquid to another liquid, over a period of time.
- Conical Flask: used to mix two or more liquids and add the reagents in order to know the amount of concentration.
- Volumetric Flask: used to prepare the solution in exactly desired concentration.
- Round bottom flask: used to purify, addition and/or heat the solution or liquids.

- Beaker: used to dissolve the solid in the solvent to produce the solution.
- Glass rod: used to stir the solid particle to accelerate the solvation.
- Washing bottle: to wash the remained particles in the flasks, beaker, or other equipment.
- Funnel: used to 1)transfer the liquids to narrow headed flasks and 2) filtration to separate the precipitate and the liquid.
- Dropper: Addition of drops of reagent(s)
- Glass watch: to add the solid samples on, then put on the balance.
- Balance: to weigh the solid sample weight.
- Thermometer: to measure the temperature of a solution or any other thing.
- Tong: to hold the hot flasks.

- Crucible: to heat the solutions to a very high temperatures
- Mortar and Pestle: to crush the large solid particles into powder.
- Bunsen burner, Heating Mantle, Hot Plate: used as a source of heating.
- Tripod: to hold the gauze mate (wire gauze) and then put the equipment on.
- Filter paper: to used 1) sometimes instead of watch glass for the balance, and 2) used inside the funnel for the filtration purpose in order to separate the precipitate from the liquid inside the solution.
- Stand and Clamp: to hold and catching the equipment.