



Science Tools

Laboratory Instruments



SCIENCE TOOLS

- **To become a successful scientists, we must be able to identify and use scientific instruments or tools.**
- **These tools are for collecting data, taking measurements, and recording observations.**
- **Scientists use a variety of tools to do investigations.**

safety goggles



**Eyewear that
protects the eyes
during a science
experiment or
investigation from
hazardous or
dangerous
materials.**

magnifying lens

A tool that
magnifies objects
or
enlarges, or makes
objects look bigger than
they are.



stereoscope

A binocular instrument that
magnifies 2
dimensional objects
(shows length and depth)



microscope



A tool that magnifies at a much higher power than a hand lens.

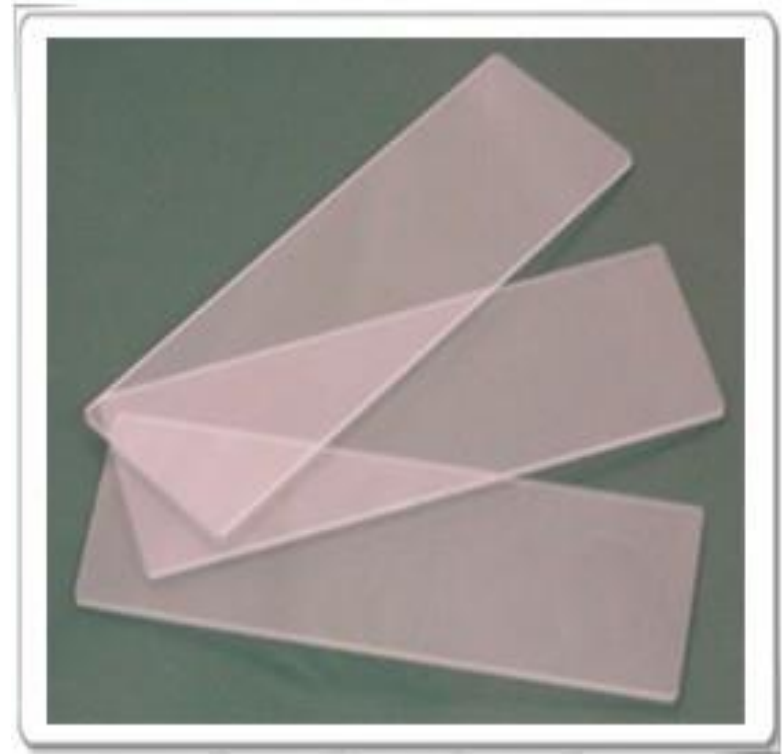
It **magnifies** or makes tiny objects larger, only used on **microscopic, flat, opaque specimens.**

cover slip & slides

Items used to create a wet mount slide to view specimen(s) under a microscope.

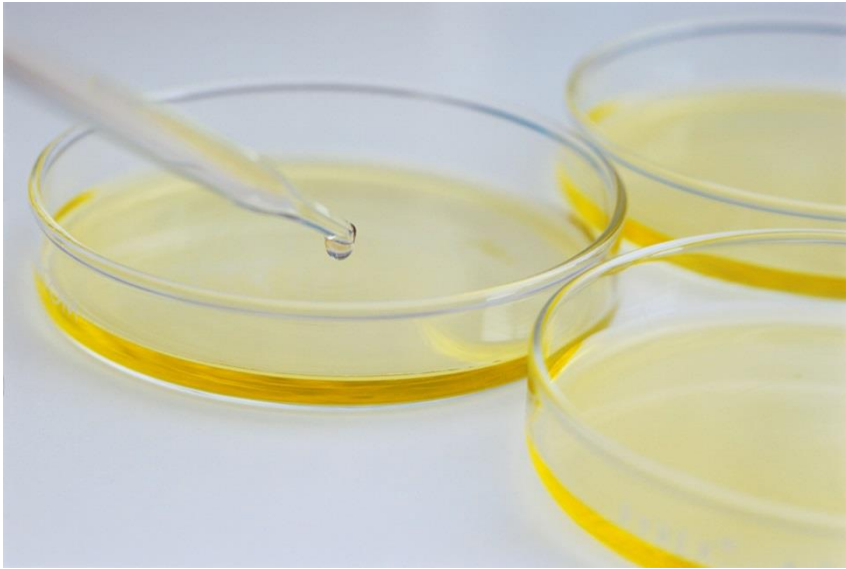


The coverslip helps to flatten surface and keep specimen in place.



The slide provides a platform from which to view a specimen.

petri dish



A container used for samples or specimens.

A tool to culture (cultivate or grow) microorganisms.

triple beam balance



A balance tells the amount of matter an object contains.

measures mass

beaker

An open cylindrical container with a pouring lip.

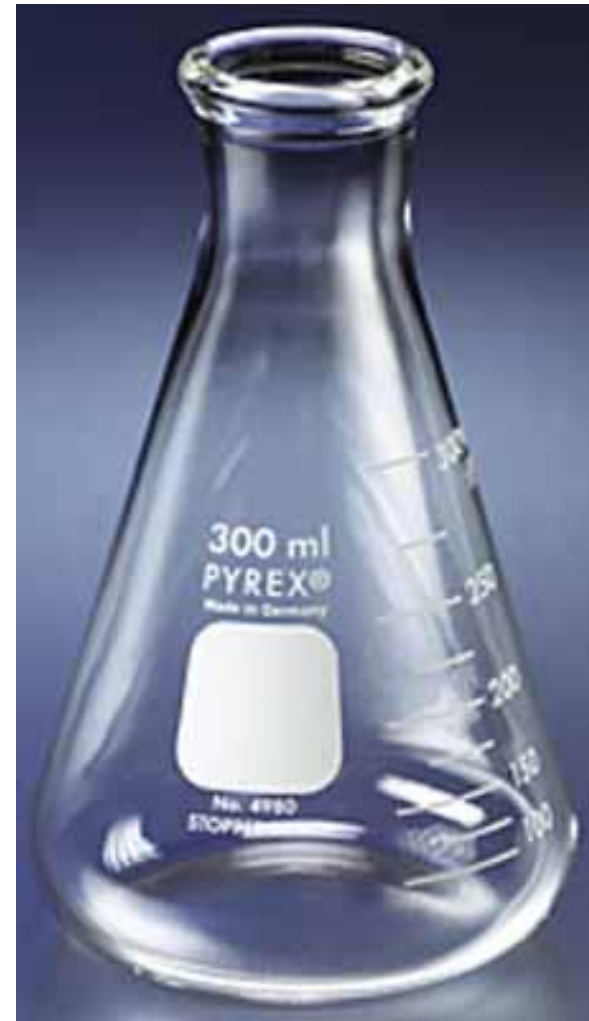
measures volume



erlenmeyer flask

Container with a flat bottom and tapered neck. Easy mouth pours solutions and may be closed with a stopper (top).

Measures volume & allows for mixing without spillage.



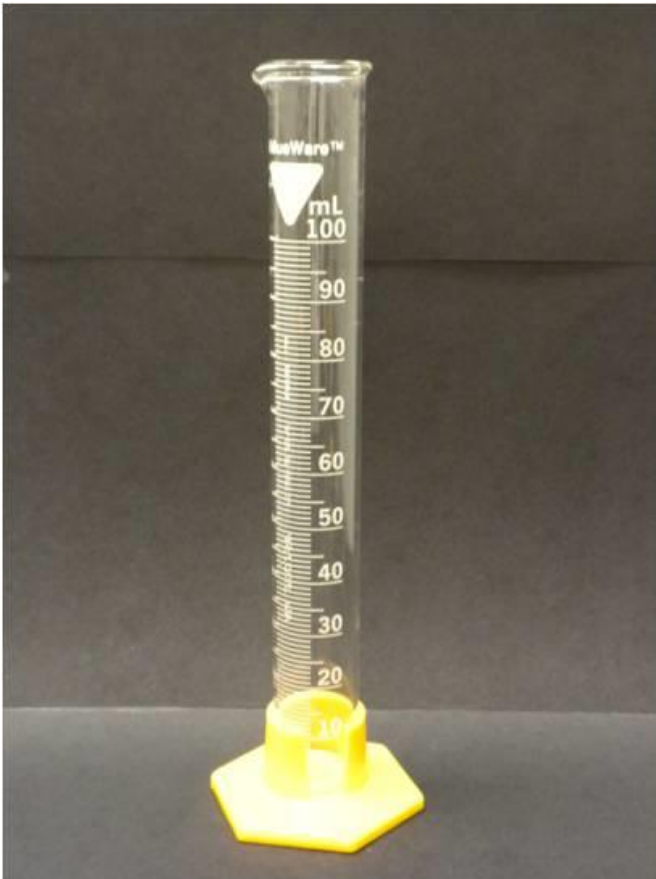
bulb flask

container used to
heat or boil a liquid

measures volume



graduated cylinder



- Used to measure volume of liquids.
- **measures volume**

test tube & test tube rack

- A test tube is used to **heat, hold, or mix liquids or solids** in chemistry class.
- It is cylindrical; open at one end and closed at the other.
- test tube rack is used to **organize/hold test tubes with chemicals; also a drying rack**



dropper

A pipet, or tube,
for dispensing
small amount of
liquid, in drops.



telescope



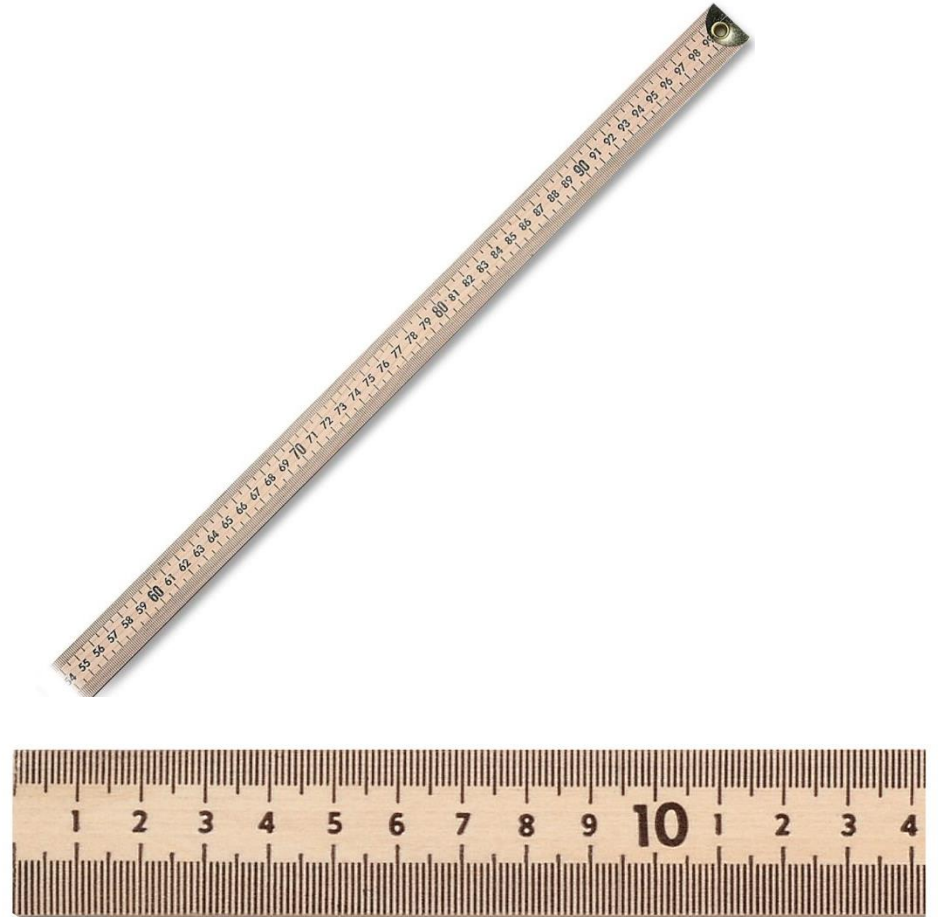
A tool used to see objects in the sky.

It **magnifies** or makes **objects in the sky** larger.

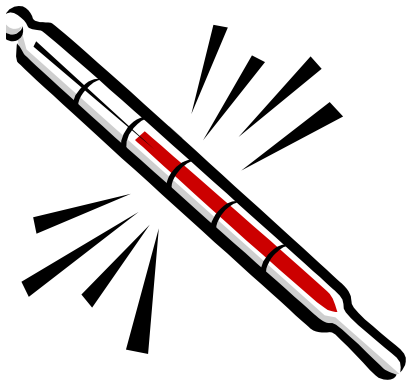
meter stick

A meter tool is used
to **measure distance;**
or the length of
objects.

In science, we use
the metric system
for measuring.



thermometer



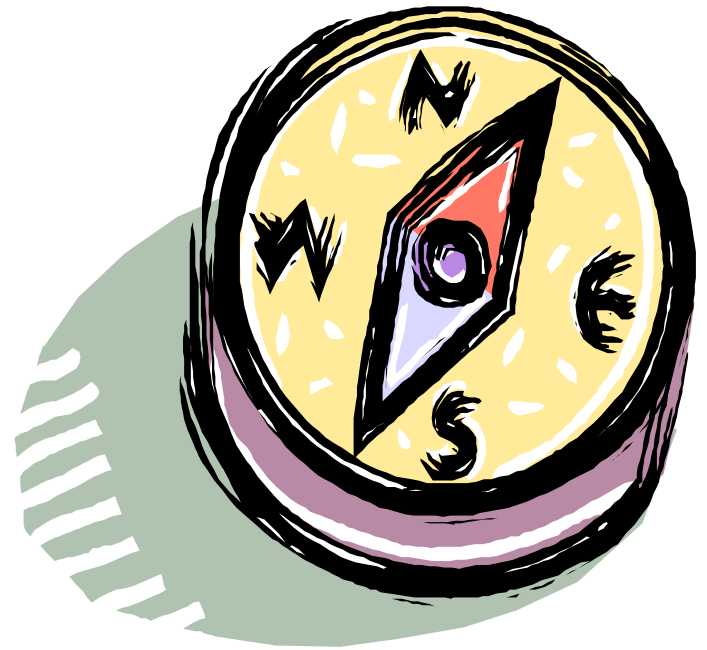
A tool that **measures** the **temperature** of air (gas) and most liquids.

The Greek prefix “**therm**” means “**heat**”.

compass

A tool to **navigate direction**; N (north), S (south), E (east), and W (west).

It is used to find Earth's magnetic north pole.

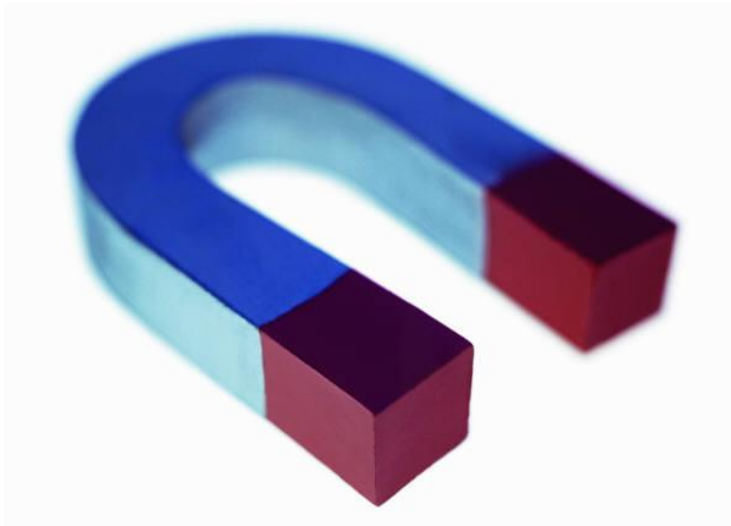


stopwatch

**A tool that
measures time.**



magnet



Attracts (pulls towards)

or

repels (pushes away)

objects with iron,
nickel, or cobalt.

collecting net

Used to **gather animal samples or specimens**, such as butterflies.



lab coat

Smock worn by professionals in the medical field or by those involved in laboratory work.

The coat

protects clothing

and also serves as a simple uniform.



scoopula

Scooping utensil; used like a spoon, to “scoop.”

Transfers solid chemicals or scrapes chemicals from containers, much like a spatula is used to scrape food from a bowl.



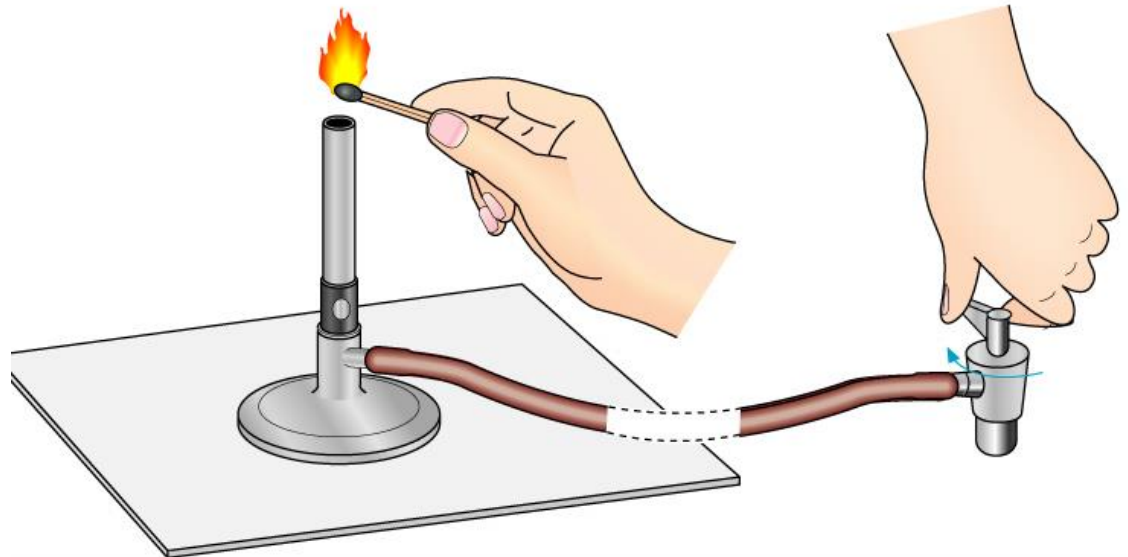
stand

Typically used to hold items (such as a flask or beaker) over a flame during lab.



bunsen burner

Produces a flame that can be used for various purposes, such as heating or sterilizing materials.



tweezers



Used to handle small objects easily.

tuning fork

- A 2-pronged metal fork that, when struck, produces a pure note of constant specified pitch.
- Demonstrates vibrational tones; pitch depends on length and mass of prongs



funnel

A tube or pipe that is wide at the top and narrow at the bottom, used for **guiding liquid or powder into a small opening.**

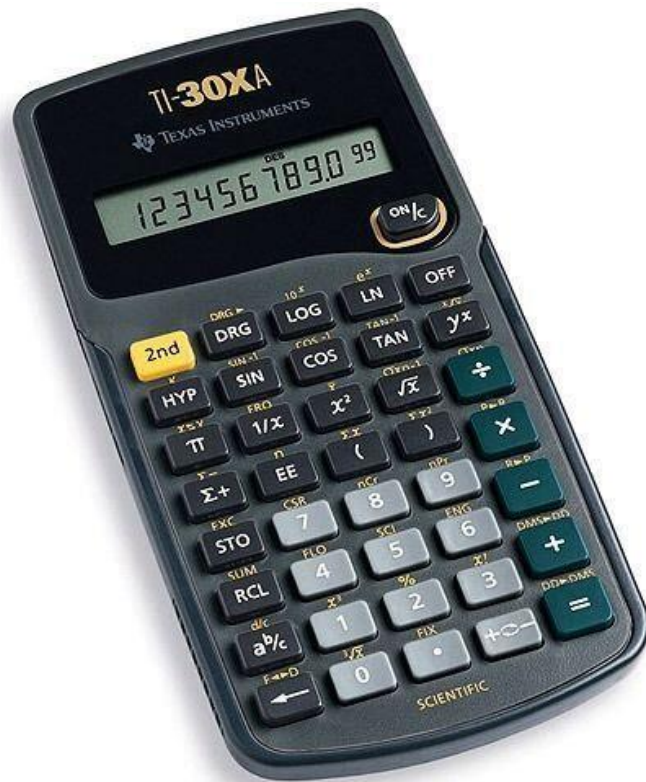


hot plate



A tool used to heat objects.

calculator



An electronic device for solving mathematic problems in science class.

computer



**An electronic tool that performs tasks by
processing and storing information / data.**