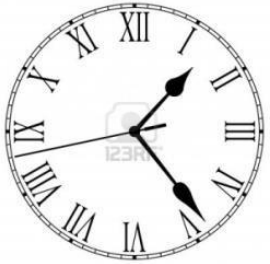




Measurement Instrumentation

FOR TIME

- **Clock:** a clock is an instrument used to indicate, measure, keep, and co-ordinate time. The modern clock has been used since the 14th Century.
- **Chronometer:** A chronometer is a very accurate time-keeping device that is used for determining precise duration of events.
- **Calendar:** A calendar is a system of organizing days for social, religious, commercial, or administrative purposes. This is done by giving names to periods of time, typically days, weeks, months, and years. The name given to each day is known as a date.
- **Atomic Clock:** A timepiece that derives its time scale from the vibration of atoms or molecules.



FOR LENGTH

➡ **Tape Measure:** It is a measuring instrument consisting of a narrow strip (cloth or metal) marked in inches or centimeters and used for measuring lengths.

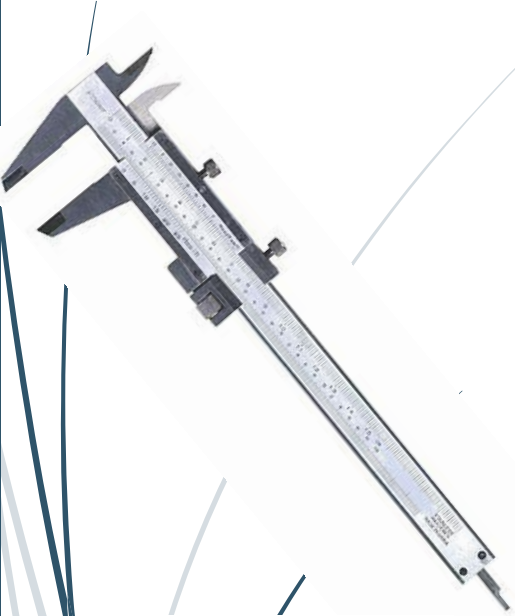
➡ **Odometer:** Instrument used to record journeys or total mileage of a car.

➡ **Altimeter:** an instrument that measures the height above ground; used in navigation.



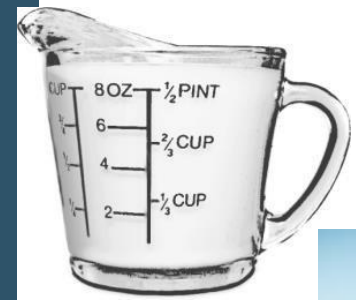
FOR LENGTH

- **Vernier Scale:** A small movable scale that slides along a main scale; the small scale is calibrated to indicate fractional divisions of the main scale
- **Caliper:** An instrument for measuring the distance between two points (often used in the plural).
- **Opisometer:** An opisometer, also called a meilograph or map measurer, is an instrument for measuring the lengths of arbitrary curved lines.



FOR VOLUME

- **Measuring cup:** Graduated cup used to measure liquid or granular ingredients.
- **Pipet:** Measuring instrument consisting of a graduated glass tube used to measure or transfer precise volumes of a liquid by drawing the liquid up.
- **Beaker:** 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 and a lip for pouring.
- **Eudiometer:** It is a laboratory device that measures the change in volume of a gas mixture following a physical or chemical change.



FOR SPEED



- **Radar gun:** A radar speed gun (also radar gun and speed gun) is a device used to measure the speed of moving objects. It is used in law-enforcement to measure the speed of moving vehicles and is often used in professional spectator sport, for such things as the measurement of the speed of pitched baseballs, runners and tennis serves.



- **Speedometer:** An instrument that records the speed of a vehicle in motion for the driver of the vehicle.
- **Tachometer:** Used to measure the speed of rotation of a gear or shaft or other rotating part of the engine.

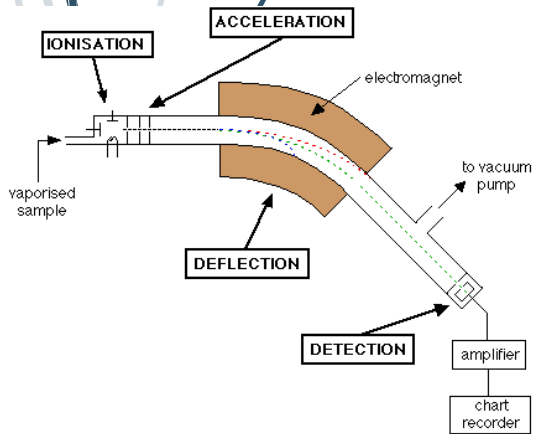
FOR MASS



- **Balance:** A device based on gravity and equilibrium among two sides, one side used for the measuring sample and the other for the comparing standard.



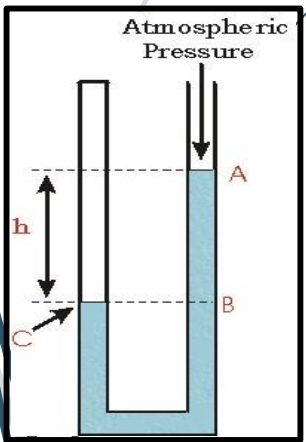
- **Weighing Scales:** Is a measuring instrument for determining the weight or mass of an object.



- **Mass Spectrometer:** Is an instrument that can measure the masses and relative concentrations of atoms and molecules. It makes use of the basic magnetic force on a moving charged particle.

FOR PRESSURE

- **Anemometer:** A gauge for recording the speed and direction of wind.
- **Barometer:** An instrument that measures atmospheric pressure.
- **Manometer:** Device to measure pressures. A common simple manometer consists of a U shaped tube of glass filled with some liquid. Typically the liquid is mercury because of its high density.
- **Tire Pressure Gauge:** A tire-pressure gauge is a pressure gauge used to measure the pressure of tires on a vehicle.



FOR ELECTRICITY

- **Ohmmeter:** A meter for measuring electrical resistance in ohms.
- **Ammeter:** A meter that measures the flow of electrical current in amperes.
- **Voltmeter:** Meter that measures the potential difference between two points in volts.
- **Multimeter:** A multimeter or a multitester, also known as a volt/ohm meter or VOM, is an electronic measuring instrument that combines several measurement functions in one unit. A typical multimeter may include features such as the ability to measure voltage, current and resistance.



FOR ANGLES

- **Protractor:** A semi-circle device used for measuring angles. The edge is subdivided into degrees.

