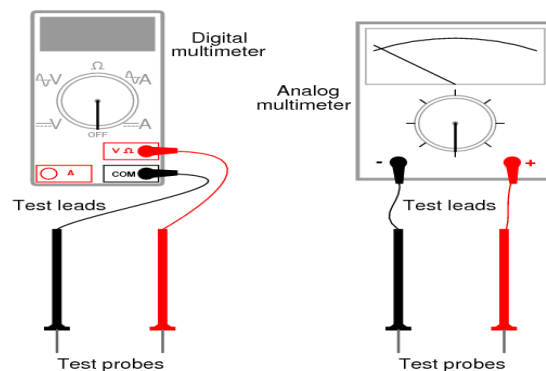


Voltmeter

A voltmeter is an instrument used for measuring electrical potential difference between two points in an electric circuit. It is a measure of the voltage between two points of an electrical current. Mainly two types of voltmeter are used in a laboratory: analog and digital voltmeters.

In an analog voltmeter the readings are shown on a scale. A digital voltmeter (DVM) measures an unknown input voltage by converting the voltage to a digital value and then displays the voltage in numeric form.

A moving coil galvanometer can be used as a voltmeter by inserting a resistor in series with the instrument.



A voltmeter works on the principle of Ohm's Law. That is Potential Difference (Volt) = Current (Ampere) × Resistance (Ohm). Or $V = IR$.

When measuring a voltage difference there are always two leads coming from the instrument that will have to be connected to the two points in the given electric circuit across which the voltage appears.

Application of voltmeter:

It can be used to tell whether there is power in a circuit or not; and by measuring the voltage across a known resistance, one can determine the current through it.

Teachers may suggest students to make a brief idea about scientific instruments in physics depicting the advancements in the subject.