

# Ohm's Law

It states that “at constant **temperature** voltage across a resistor is **directly proportional to the current flowing through the circuit**”.

$$V \propto I$$

$$\text{or, } V = IR$$

Where, R = Resistance

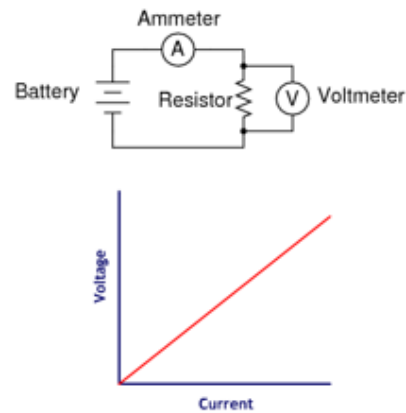


Fig: Ohm's Law

## Ohm's Law

The following points may be noted about Ohm's law:

- ❑ Ohm's law is true for **DC circuits** only.
- ❑ It is true for **metal conductors** at constant temperature.
- ❑ Ohm's law can be expressed in three forms.  
 **$I = V/R$ ;  $V = IR$ ;  $R = V/I$**
- ❑ If Ohm's law is expressed **graphically**, the graph will be a **straight line passing through the origin**.