

5.2 Current, Voltage and resistance

Voltage is the electrical Potential energy difference per unit charge

The unit of voltage is *Volt* (V).

Resistance: They can be provided on a circuit by devices called resistors. They resist the flow of energy.

Resistance is measured in the units ohms (Ω) using the Greek symbol omega

- Long wires have more resistance than short wires because electrons have a greater distance to travel.
- Thinner wires have more resistance than thicker wires

Resistance and current are inversely related

Increasing resistance in a Circuit decreases the current flow

Voltage=Current x Resistance

$$V = I \times R$$

An increase in voltage will cause an increase in current.

Increasing the resistance will decrease the current.