

## Resistance.

Every material has an electrical resistance.

The greater the materials resistance, the smaller the current which flow through it.

Conductors like \_\_\_\_\_ and \_\_\_\_\_ have very low electrical resistance. They can carry large currents well.

Insulators like \_\_\_\_\_ have very large resistances. They will only allow very small currents to flow through them.

Resistance is measures in **Ohm's**.  
Resistance is found by the equation:  
**Voltage / Current.**

So, what a wire is made of affects the electrical resistance in a circuit.

Other factors that affect resistance are:

- Length of the wire.
- Thickness of the wire.

When a current flows through a wire, **electrical energy is changed into heat energy.**

Materials with **high** electrical resistance produce **more heat** than those materials with **low** electrical resistance.