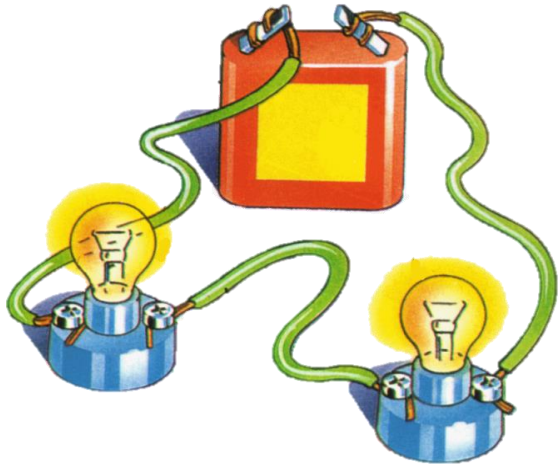


ELECTRICITY

Overview



Electricity is a type of **energy**.

It is used to power lots of different things, including many items that we use in everyday life.

Electricity can flow through wires and cables, and can be stored in **batteries** (sometimes called **cells**).

Electricity can **flow** in simple series electrical circuits.

Some materials **conduct** electricity, and others do not (**insulators**).

Creation & Uses of Electricity

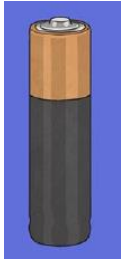
Electricity can be created in a number of different ways, for example:

- Burning fossil fuels (oil, gas, etc.) in power stations;
- Using solar power generated from the sun;
- Using wind power from wind turbines;
- Using water power (hydropower).

Electricity is used to power numerous household appliances, for example: laptops, TVs, fridges, microwaves, toasters, ovens and lights/lamps.



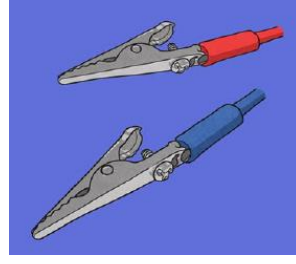
Components of a circuit



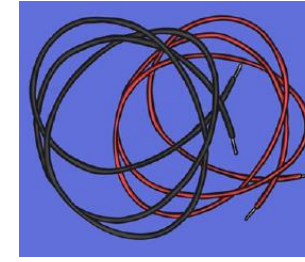
battery (cell)



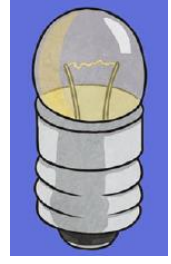
battery holder



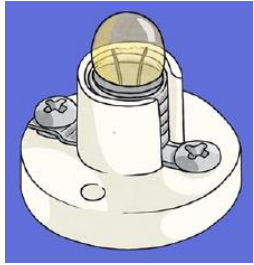
crocodile clips



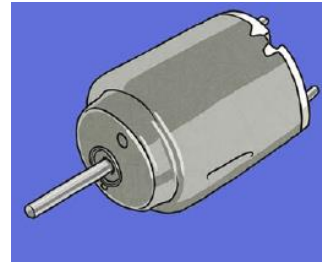
wires



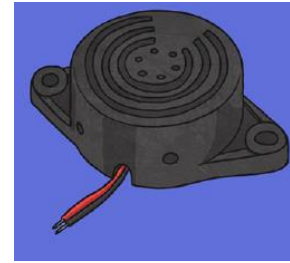
bulb



bulb holder



motor

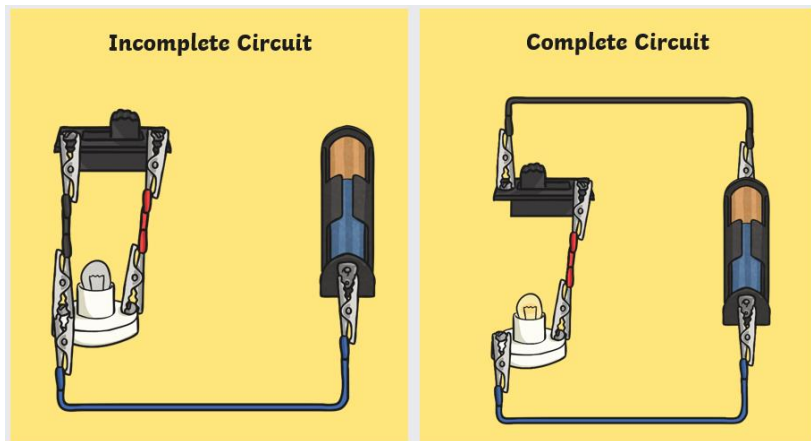


buzzer



switch

Simple Series Circuit



A circuit is the path the electric **current** follows. It must have no breaks in it (a complete **circuit**) for electricity to flow.

A battery (or cell) is something in which electricity can be stored.

Wires and cables are thin flexible threads that transport electricity.

A switch opens and closes a circuit.

Conductors allow electricity to flow through freely. **Insulators** do not allow electricity to flow through freely.

Conductors

Insulators

Silver

Gold

Copper

Steel

Sea Water

Rubber

Glass

Oil

Diamond

Dry Wood