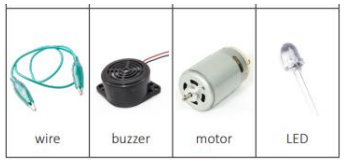
Electricity

Electricity is a form of energy that makes things work. Electrical appliances with cords and plugs are powered from the mains power supply. Cordless and portable devices are powered by electrical energy stored in cells or batteries.

Components

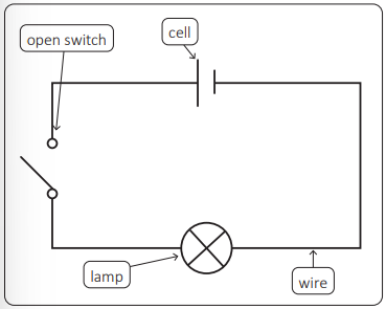
All electrical items are made up of components, which make them work. Components have different jobs. For example, a cell provides electrical power, a buzzer creates a sound, a switch makes or breaks a circuit and a motor creates movement.



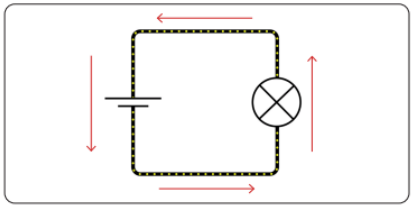
Circuits

A circuit is a collection of components connected by wires through which electricity can flow. If a circuit forms a loop with a single path for the current to take, it is called a series circuit.

- When electricity flows through all the components of a circuit, it is called a complete circuit.
- When electricity cannot flow through all the components of a circuit, it is called an incomplete circuit. Loose wires, damaged components and flat cells or batteries can all stop the flow of electricity around a circuit.



Electric current

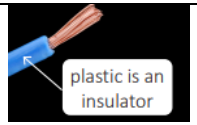


An electric current is the flow of electric charge through a circuit. For an electric current to flow, a circuit must be complete. The electric current flows from the cell through the components and back to the cell

Voltage

Cells have different names e.g. AA, AAA and D.

In a circuit, the cell acts like a pump, pushing electric charge around the circuit. This pushing force can be measured using a voltmeter or multimeter. The pushing force is known as voltage, which is measured in volts (V)

Vocabulary	Definition	
Conductor	A material that allows electricity to flow through it. Most metals are conductors.	
Insulator	A material that does not allow electricity to flow through it.	

Circuit symbols