

When a light is switched on, you are sending a flow of electrons around the circuit.

Metals such as copper, aluminium, zinc and gold are good conductors of electricity.

Light bulbs turn electricity into light due to resistance.



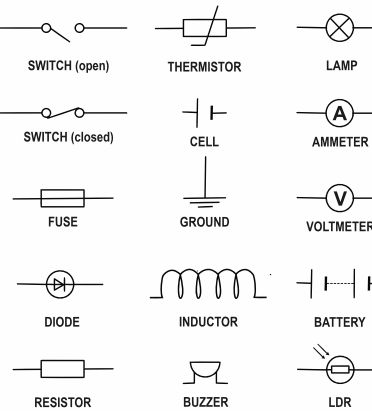
## Key Vocabulary

### Key Word

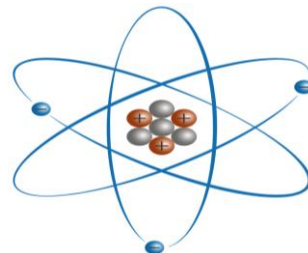
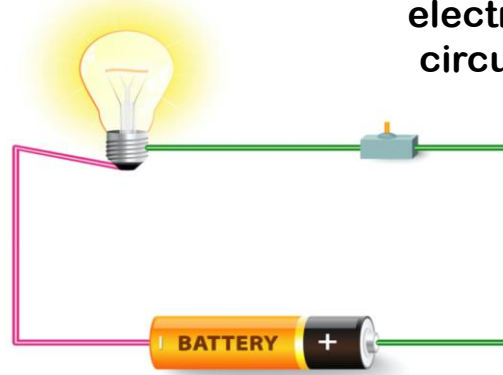
### Definition

current	Current is the flow of an electric charge. Current flows through a circuit when a voltage is placed across two points of a conductor.
voltage	An electric force which 'pushes' the electric current round the circuit.
insulator	A material which doesn't conduct electricity.
conductor	A material that electricity can flow through easily.
component	An individual part in an electronic circuit.
series circuit	Contains a single pathway through which electricity can flow
parallel circuit	Contains multiple pathways, or branches

### Electric circuit symbols



### A simple electric circuit



Atom structure

- Proton
- Neutron
- Electron

### FACTS:

Can you find out more?

Q1. How is static electricity created?

A1. Friction on an object creates an electric charge.

Q2. How does a wind-up torch work?

It works through a dynamo which turns mechanical energy to electrical energy through a simple electromagnet.

Q3. How are insulators helpful?

They prevent electric flow so you don't receive an electric shock!

### Lesson Sequence

1

•Recap knowledge of circuits

2

•Investigate ways in which a bulb becomes brighter or motor speed is changed.

3

•Recognise conventional symbols for circuits.

4

•Does changing the wire in a circuit affect the brightness of a bulb?

5

•Review understanding of circuits.

6

•Assessing knowledge and understanding of circuits.

### Unit: Electricity

This unit will help you explore different types of electricity as well as understanding what makes up a circuit. You will learn about this by studying circuit diagrams and by building your own circuits. You will also think about safety with electricity. It will also help you learn about the importance of saving energy.

Understanding electricity is important for many careers which involve circuitry and installation of electrical devices. It is also helpful for being able to do quick jobs safely and with knowledge.