Science
Year 6

Science • Electricity

Crucial Knowledge

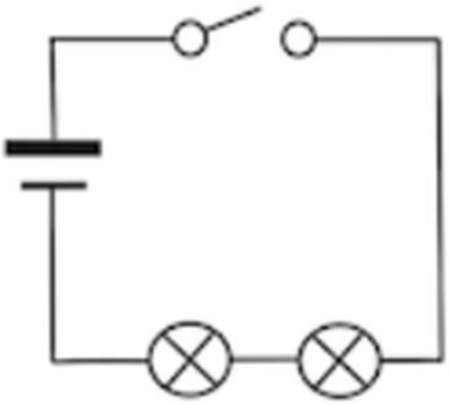
- Current electricity is the flow of charged particles called electrons around a circuit
- Current electricity is the form of electricity that we use in our lives in lights, computers, televisions, etc.
- Electrical current flows well through some materials, called electrical conductors, and poorly through other materials, called electrical insulators
- Electrical current can flow if there is a complete circuit
- Wires – which contain a conductor inside them, usually made of metal – can allow electrical current to flow around a circuit
- When electrical current flows through a circuit components within that circuit – such as buzzers which make a noise and bulbs which emit light – begin to work
- A switch functions by completing or breaking a complete circuit
- As the number and voltage of cells in a circuit increases, the brightness of a bulb or the volume of a buzzer will increase too.

Key Vocabulary

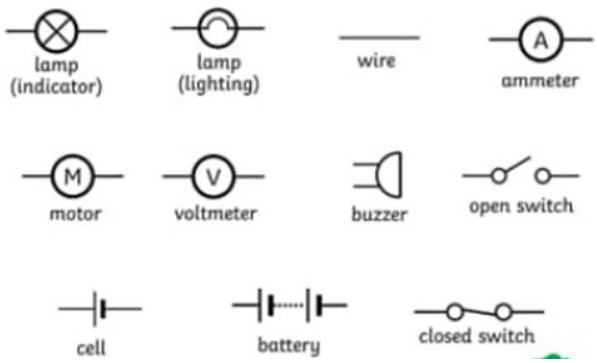
circuit:	is a complete path around which electricity can flow.
component:	The different elements of a circuit such as bulb, buzzer and battery
conductor:	a material that electric charge can pass through easily.
insulator:	a material which does not allow electricity to pass through it.
electron:	Is a small piece of matter and energy.
voltage:	is an electric force that causes free electrons to move from one atom to another.

Diagrams / Images

series circuit



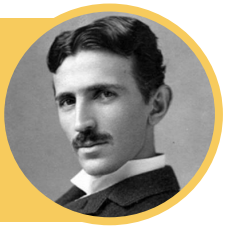
Electrical Circuit Symbols



Important People

Lincoln Hawkins
Chemical engineer who developed the "plastic cable sheath," safety coating for telecommunications wire. It is still used today to protect fibre optic cable.

Nikola Tesla
Was a Serbian engineer who developed electrical power transmission. In 1891 he invented the Tesla coil, an induction coil widely used in radio technology.



We Are Building Our Knowledge From

- Electricity (Y4)