

What should I already know?
 Electricity is a form of energy that can be carried by wires and is used for heating and lighting, and to provide power for devices.
 Sources of light and sound may need electricity to work.
 Electricity can be dangerous.



Y4: Electricity

Key Knowledge

Many household devices and appliances run on electricity. Some plug in to the mains and others are powered by batteries.

An electrical circuit consists of a cell or battery connected to a component using wires. If there is a break in the circuit, a loose connection or a short circuit, the component will not work.

A switch can be added to the circuit to turn the component on and off. Metals are good conductors so they can be used as wires in a circuit.

Non-metallic solids are insulators except conductors for graphite (pencil lead). Water, if not completely pure, also conducts electricity.

Key Vocabulary

circuit	a complete route which an electric current can flow around.
current	a flow of electricity through a wire or circuit.
battery	a small device that provides power for electrical items.
conduct or	any material that electricity can pass through or along..
insulator	any material that electricity cannot pass through or along..
wire	a long thin piece of metal that carries an electrical current often covered in plastic for safety.
cell	a device used to generate electricity. A battery is an example of a cell.
switch	a small control for an electrical device which you use to turn the device on or off.

Electrical Conductors	Electrical Insulators
Copper	Rubber
Iron	Wood
Steel	Plastic
Silver	Paper
Gold	Air
Graphite	Ceramic

This circuit will not work as it is not complete.

This circuit is complete so the buzzer will sound and the bulb will light.

Alessandro Volta

He discovered the first practical method of making electricity.

Michael Faraday

First person to discover that moving a magnet near a coil of copper wire introduced an electric current in a wire.

Thomas Edison

He developed many devices including the early version of the electric light bulb.