



# Science Electricity



Year 4  
Autumn Term

## Key Learning

Many everyday appliances rely on electricity for them to work, some use mains electricity (are plugged in to a socket), some use battery.

A circuit needs to be complete so that electricity can flow and the components will work. A circuit needs a source of electricity such as a battery to work.

Switches can be used to open or close a circuit.

A series circuit is where the components are part of a complete loop.

Materials can be tested in a circuit to see if they are electrical conductors or electrical insulators.

Metals make good electrical conductors.

## Key Vocabulary

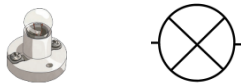
Electricity	The flow of an electric current through a material.
Appliances	A piece of equipment or device designed to perform a particular job such as a washing machine or mobile phone.
Mains Electricity	Electricity supplied through wires to a building.
Battery	A device that stores electrical energy as a chemical. Two or more cells joined together form a battery.
Circuit	A pathway that allows electricity to flow around. It is based around wires and a power supply.
Electrical Conductors	A material that allows electricity to flow through it.
Electrical Insulators	A material that does not allow electricity to flow through it.

## Components

Cell- a scientific name for a battery



Bulb- Lights up in a complete circuit.



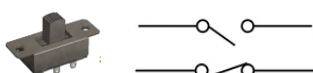
Buzzer- Makes a noise in a complete circuit.



Wires- Used to connect components in a circuit.



Switch- Used to turn other components on and off.



Motor- Provides movement in a complete circuit.



## Circuits

Series Circuit- Electricity flows through each component in a single pathway.



Complete Circuit- Electricity can flow. The components will work.



Incomplete Circuit- There is a break in the circuit that prevents the electricity from flowing. The components will not work.



## Working Scientifically

Setting up practical investigations

Using equipment safely

Using results to draw simple conclusions