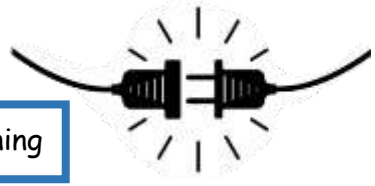
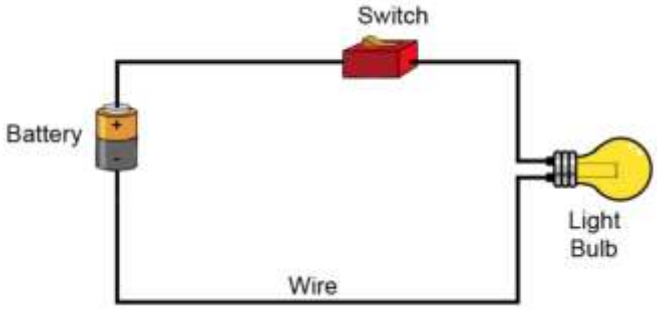
Electricity



Prior year 4 Learning

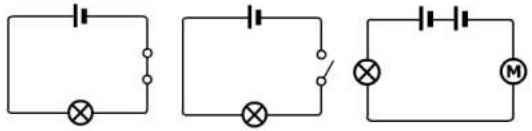
In year 4, we learnt…

- How to construct a simple series electrical circuit
- How to recognise some common conductors and insulators
- To recognise that a switch opens and closes a circuit



Resistors

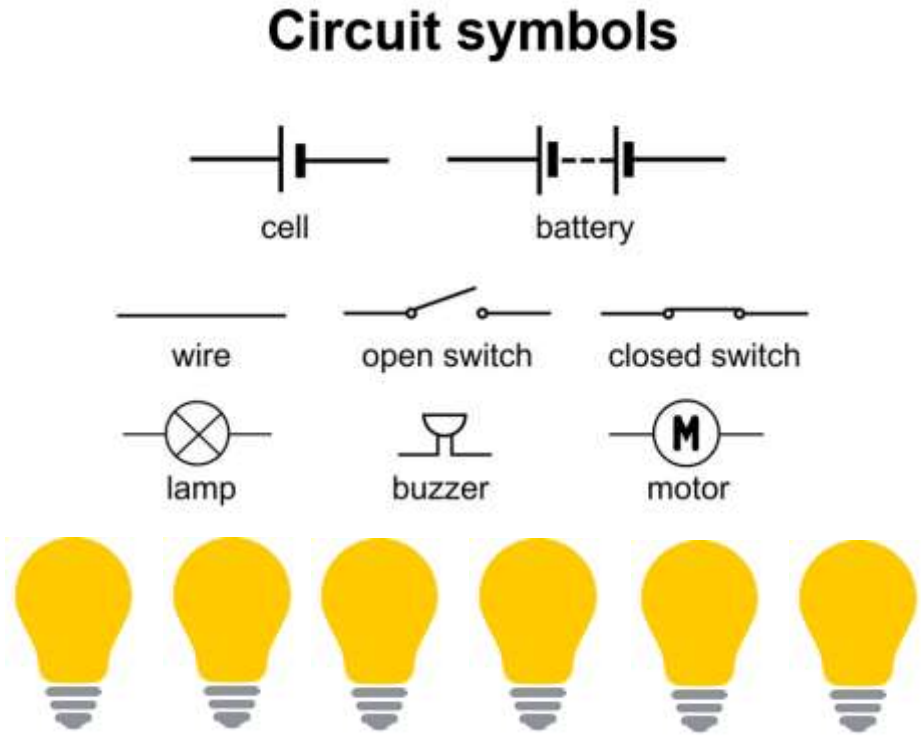
Resistors (bulbs, buzzers, motors etc) use energy. The more resistors in a circuit, the less energy there is for each of them to use. For example, two bulbs will shine less brightly than one bulb. Using more cells or batteries will increase the energy available.



Year 6 Learning

In year 6, we will learn…

- How the number of cells in a circuit affect the brightness of a lamp
- To compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches
- To use recognised symbols when representing a simple circuit in a diagram.



Key Vocabulary

Circuit	complete path which an electric current can flow around.
Component	A part used in an electrical circuit
Electricity	A form of energy caused by electrons moving
Cell (battery)	The chemical 'push' that moves the electrons around the circuit
Switch	A component that can complete or a break a circuit
Conductor	An object that allows electricity to flow through it easily and with little resistance
Insulator	An object that does not allow electricity to flow through it
Voltage	a measure of how strong the current is in a circuit. It is what "pushes" the current through the circuit to a device.
Current	The flow of electrons around a circuit
Motor	a device that turns electrical energy into motion, usually rotation.
Voltmeter	an instrument that measures the voltage
Lux	A unit that measures the brightness of light

How does a Circuit Work?

In a series circuit all the components are joined together and the electricity can only flow in one direction - You must learn the different symbols for the different components. Switches can be used to open and close circuits. However, a circuit will not work properly if:

- the cells aren't connected correctly
- a component isn't working or there's no bulb
- the circuit has gaps
- one of the components acts as an insulator