

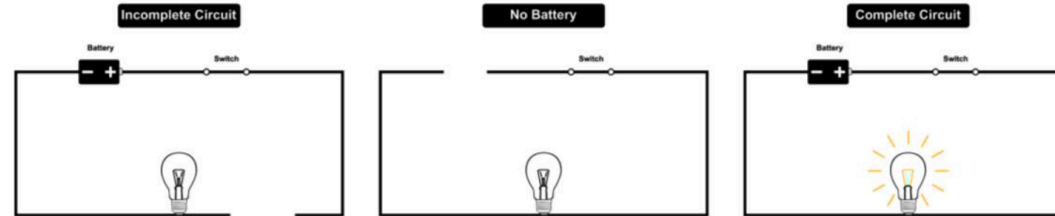
Year 4 - Electricity - Half Term 2

Key Facts

1. A circuit contains a battery (cell), wires and a component that requires electricity to work (bulb, motor or buzzer).
2. Electrical current flows through the wires from the battery (cell) to the bulb, motor or buzzer.
3. A switch can break or reconnect a circuit.
4. A switch controls the flow of the electrical current around the circuit. When the switch is off, the current cannot flow. This is not the same as an incomplete circuit.

Simple Electrical Circuit

These are complete circuits - they have a battery (cell) and a component (bulb). The wires are placed in the right places of the battery for the circuit to work.



These circuits will not work as they are incomplete.

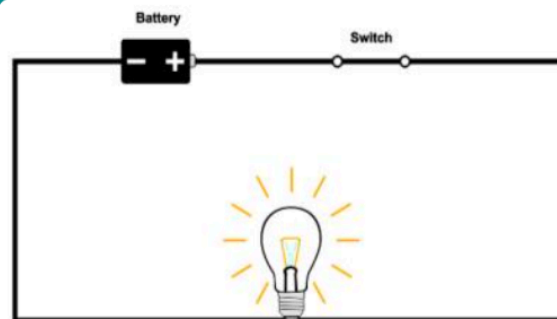
Conductors and Insulators

- Materials that allow electricity to pass through to create a complete circuit are called electrical conductors.
- Materials that do not allow electricity to pass through and do not complete a circuit are called electrical insulators.

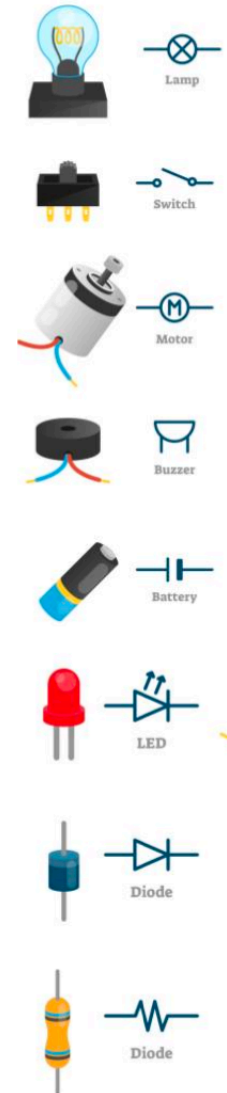


Simple Circuit

A complete circuit is a loop that allows electrical current to flow through wires.



Electrical Components



Key Vocabulary

electricity	energy that powers electrical appliances
batteries	containers made of cells in which chemical energy is converted into electricity
circuit	a pathway that electricity flows around
voltage	the measure of electrical power
current	the flow of electricity
bulb	the glass case that contains the filament of an electric lamp
conductor	electrical conductors are materials which allow electricity to flow through them easily
insulator	materials that do not let electricity pass through them easily
switch	a device which builds and breaks the connection in an electric circuit
control	manage the amount of something
wind turbines	a device which produces electricity using the power of the wind
hydropower	a process that produces electricity using the power of water

To know statements



I know about common electrical appliances and electrical safety.

I know about the electrical components in a series circuit.

I know if a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery.

I know some common conductors and insulators.

I know that a switch opens and closes a circuit.

I know how electrical components can change within a circuit.

What do you already know? (New concept)

What do you know about electricity?

What uses electricity in the house?

Why do you have to be careful with electricity?

Anything else you have learnt? What have you enjoyed?

