

Using electricity

Electricity is the flow of electrical current through wires and is used to make devices and appliances work.

When an electric current reaches an electrical appliance, it may produce light, movement, heat, or sound.



Generating electricity

Electricity is generated from resources such as coal, oil, and natural gas (known as fossil fuels), as well as wind and sunlight.

Fossil fuels are non-renewable resources. Wind power and solar power are renewable resources.

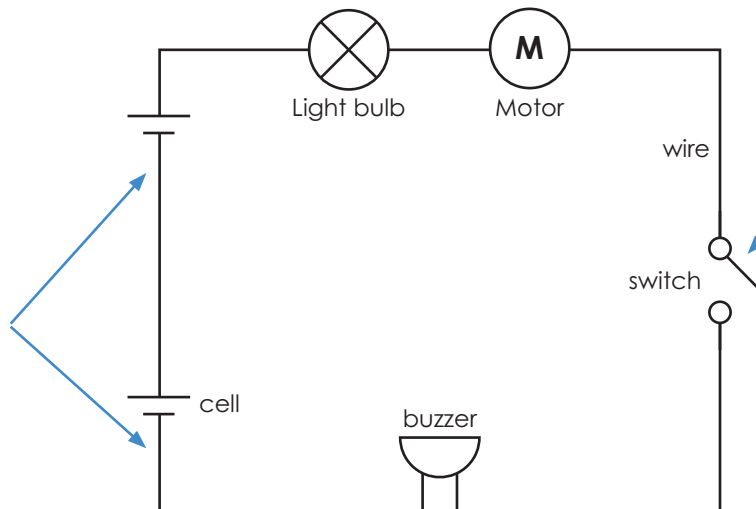
Non-renewable energy resources	Renewable energy resources
<ul style="list-style-type: none"> • Coal 	<ul style="list-style-type: none"> • Wind
<ul style="list-style-type: none"> • Oil 	<ul style="list-style-type: none"> • Sunlight (solar)
<ul style="list-style-type: none"> • Natural gas (fossil fuel) 	<ul style="list-style-type: none"> • Tidal

Series circuits

In a series circuit, electricity flows along one pathway and passes through every component one after another. If one component breaks, the rest stops working.

Series circuits can be drawn using circuit diagrams.

The more cells that are used, the brighter the lamp, the louder the buzzer, or the faster the motor spins.

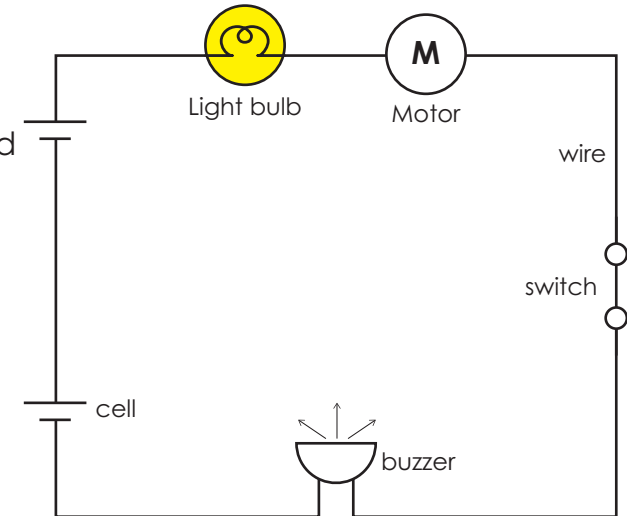


Simple circuit

A simple circuit is an example of a series circuit. Simple circuits have three components: a cell, wires, and another component.

Switches can be used in series circuits to turn a component on and off. When a switch is off, the circuit is not complete, so electricity will not flow.

When a switch is on, the circuit is complete, so electricity will flow.



Word	Definition
buzzer	A component that turns electricity into sound.
cell	A store of electrical energy.
circuit	A route that starts and finishes in the same place.
complete circuit	A circuit where the wires and components are connected.
component	A part placed in an electrical circuit.
electrical appliance	A piece of electrical equipment used in everyday life, like a kettle.
electrical current	The flow of electricity.
electricity	A way in which energy is transferred.
energy	Energy is the power that comes from coal, electricity and gas. Energy makes machines work and gives us heat and light.
fossil fuel	Coal, oil and gas are collectively known as fossil fuels.
generate	Make or produce.

Word	Definition
motor	A component that turns electricity into movement.
non-renewable	Cannot be replaced immediately after use.
renewable	Can be replaced immediately after use.
series circuit	An electrical circuit that has one pathway.
simple circuit	A circuit that includes wires, a cell and another component.
solar power	Energy produced from sunlight.
switch	A switch can turn electricity on and off.
symbol	A symbol is a sign which stands for something or means something.
tidal power	Power produced using energy from the tides.
wind power	Power produced using energy from the wind.
wire	A wire is a long, thin strip of metal. Electricity goes along wires.