



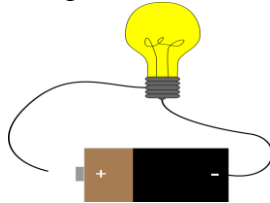
What should I already know?

That there is a variety of different materials and they are suitable for different uses.

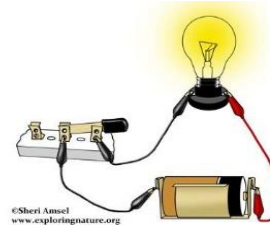
Diagrams



A complete circuit includes a source of energy with wires connected to both the positive and negative ends.

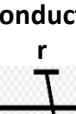


A lamp will light in a simple circuit as long the lamp is part of a complete loop with a circuit.



Vocabulary



Battery 	A source of energy.
Circuit 	When the current flows along one path.
Lamp 	A device for giving light (via a bulb), powered by electricity.
Bulb 	The light source part of a lamp, powered by electricity.
Buzzer 	A component which produces a sound.
Motor 	A component which produces rotating movement.
Switch 	Is used to turn the electricity flow on and off.
Conductor 	Any material that electricity can pass through or along.
Insulator 	Any material that electricity cannot pass through or along.

Quick Facts



Electricity is an energy caused by electrons moving to make a current.
The 3 types of energy such as light, heat, movement or sound. Electricity can be provided by mains or batteries. Many everyday appliances run on electricity. Larger appliances are powered by mains electricity e.g. washing machine and smaller appliances use batteries e.g. remote control.
A circuit is a complete path in which electricity can flow. A circuit can contain other electrical components, such as bulbs, buzzers or motors but must contain a source of energy and wires. Electricity will only travel around a circuit that is complete whereas in an open circuit, there is a break along the line and the current stops. You can use a switch in a circuit to create a gap in a circuit. This can be used to switch it on and off. When a switch is open (off), there is a gap in the circuit and electricity cannot travel around the circuit. When a switch is closed (on), it makes the circuit is complete and electricity can travel around the circuit. Electrical conductors allow electricity to pass through them easily. Metals are often used as parts of electrical objects that need to let electricity pass through. Electrical insulators stop electricity passing through them, preventing the circuit from being completed.
Plastic, wood, glass and rubber are good electrical insulators. That is why they are used to cover materials that carry electricity.

Working Scientifically

	Questioning, Planning and Enquiring		Investigating
	Observing and Recording		Concluding and Evaluating