

Electricity

Key Vocabulary



Sticky Knowledge



Components of a Circuit and Their Symbols

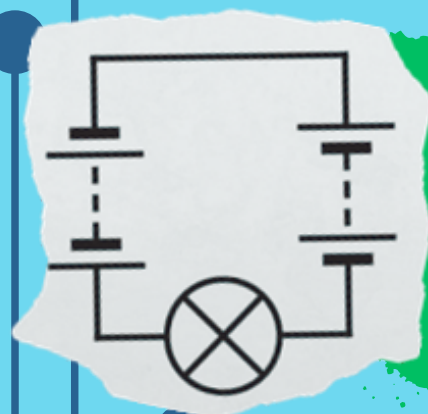
lamp/bulb (indicator)	lamp/bulb (lighting)	wire
motor	buzzer	switch (open)
cell	battery	switch (closed)

These symbols can be used to create electrical circuit diagrams.

What is Electricity?
 Electricity is a form of energy that makes things work. Electrical appliances with cords and plugs are powered from the mains power supply. Cordless and portable devices are powered by electrical energy stored in cells or batteries.

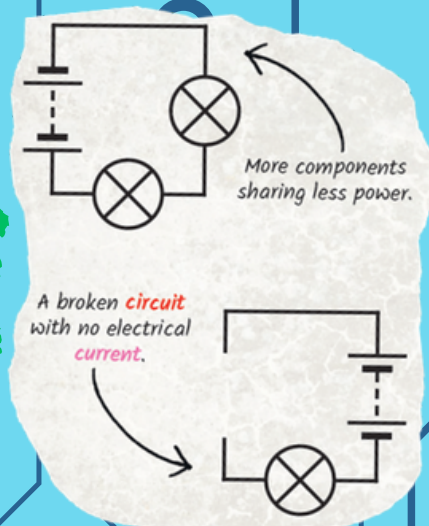
What are components?
 All electrical items are made up of components, which make them work. Components have different jobs. For example, a cell provides electrical power, a buzzer creates a sound, a switch makes or breaks a circuit and a motor creates movement.

Vocabulary	Definition
Battery	A source of voltage that provides power to a circuit.
Cell	A single unit that generates electricity. Multiple cells can be arranged to form a battery.
Component	A part of a circuit.
Electricity	A form of energy that can light bulbs, make sounds or power devices.
Lamp	A light bulb that converts electrical energy into light.
Motor	Converts electrical energy into motion.
Resistor	Limits the current flowing through the circuit.
Switch	Opens and closes the circuit, controlling the flow of electricity.
Wire	Connects the components of the circuit.



What will make a bulb brighter or a buzzer louder?
 More batteries or a higher voltage create more power to flow through the circuit. Shortening the wires means the electrons have less resistance to flow through.

Series Circuit
 A circuit that has only one route for the current to take. If more bulbs or buzzers are added, the power has to be shared and so they will be dimmer or quieter. If just one part of this series circuit breaks, the circuit is broken and the flow of current stops.



What will make a bulb dimmer or a buzzer quieter?
 Fewer batteries or a lower voltage give less power to the circuit. More buzzers or bulbs mean the power is shared by more components. Lengthening the wires means the electrons have to travel through more resistance.

