

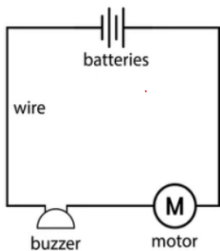


Key Vocabulary

circuit	a path that an electricity follows
symbol	simple pictures representing things that are difficult to draw
cell	part of a circuit that provides electricity - it is the correct scientific name for just one battery
battery	two or more cells used together
current	the flow of electrons which travels around a circuit
amps	the unit used to measure electric currents
voltage	how strong the push of electricity is
resistance	the difficulty that the electric current has when flowing around a circuit
electrons	very small particles that travel around an electrical circuit

Dimmer Bulbs

Fewer bulbs or lower voltage give a circuit less power. More bulbs, buzzers or longer wires increase resistance, making bulbs dimmer and buzzers quieter.

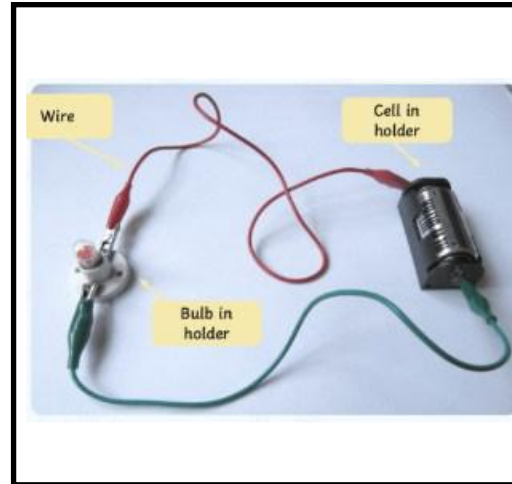


Brighter Bulbs

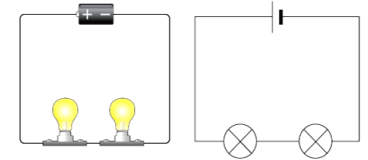
More batteries or a higher voltage give a circuit more power. Shorter wires reduce resistance, making bulbs brighter and buzzers louder. Removing bulbs or buzzers can also make bulbs brighter because the power is shared between fewer components.



Simple Circuit



Series Circuit

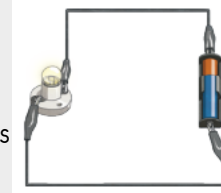


A series circuit is a circuit that has only one route for the current to take. If more bulbs or buzzers are added, the power has to be shared and so they will be dimmer or quieter.

Complete Circuit

A complete circuit is when electricity can flow around a connected circuit.

There are no breaks in the circuit.



Incomplete Circuit

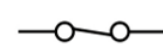
There is a break in the circuit that prevents the electricity from flowing.



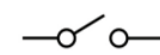
Circuit Symbols



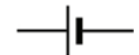
battery



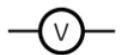
closed switch



open switch



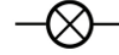
cell



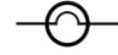
voltmeter



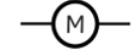
buzzer



lamp



lamp



motor



wire