



**Respect,
Believe,
Achieve**

Year 6 Electricity

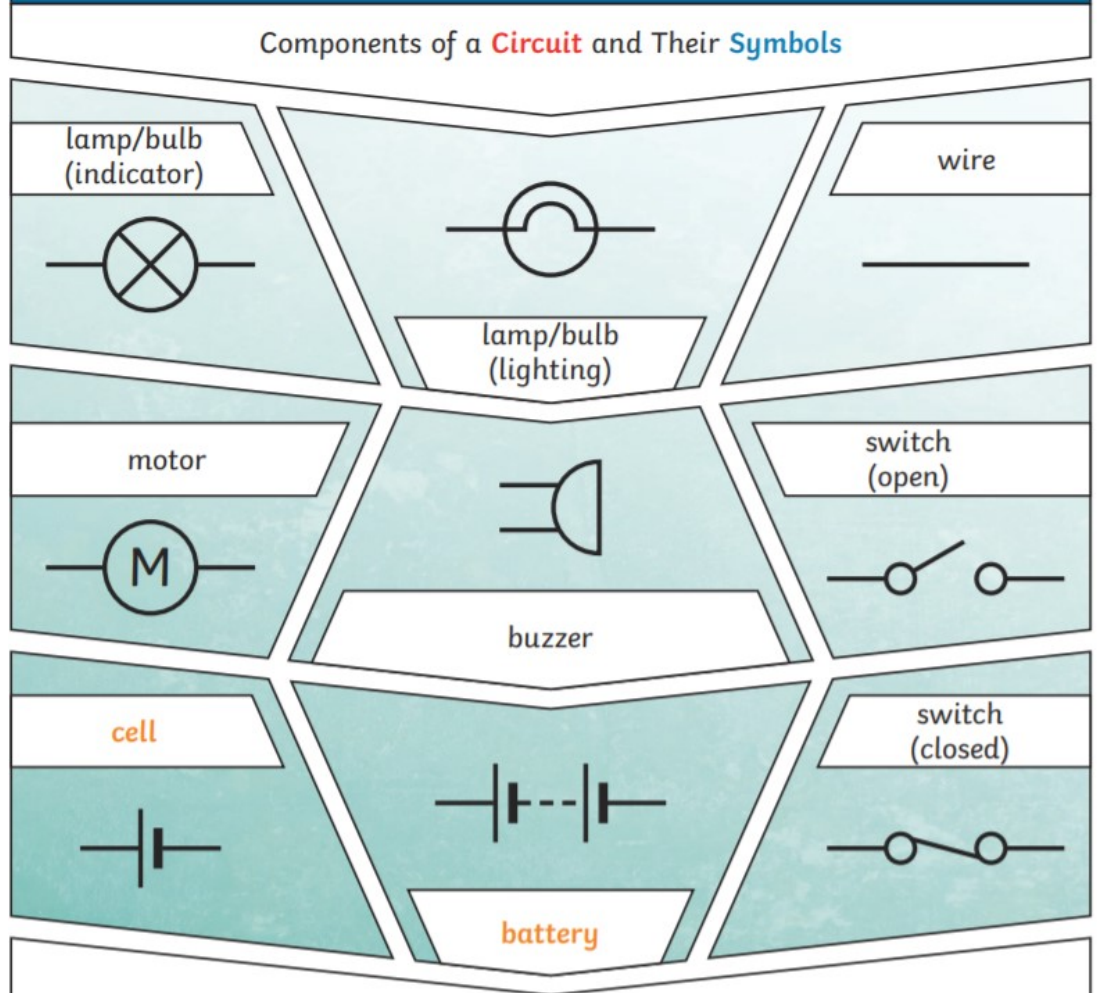
Vocab/Key Words

circuit	A path that an electrical current can flow around.
symbol	A visual picture that stands for something else.
cell/battery	A device that stores chemical energy until it is needed. A cell is a single unit. A battery is a collection of cells .
current	The flow of electrons , measured in amps .
amps	How electric current is measured.
voltage	The force that makes the electric current move through the wires. The greater the voltage , the more current will flow.
resistance	The difficulty that the electric current has when flowing around a circuit .
electrons	Very small particles that travel around an electrical circuit .

As a Scientist, what do I already know?

How to identify common appliances that run on electricity;
 Construct a simple series electrical circuit, identifying and naming its parts;
 Identify whether or not a lamp will light in a simple series circuit;
 Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit;
 Recognise some common conductors and insulators, and associate metals with being good conductors.

Key Knowledge



These **symbols** can be used to create electrical **circuit** diagrams.

Key Skills

I should be able to:

Select the most appropriate ways to answer questions;

Draw conclusions based on data and observations, use evidence to justify ideas, and use scientific knowledge and

understanding to explain findings

Systematically identify the effect of changing one component at a time in a circuit;

Design and make a set of traffic lights, a burglar alarm or some other useful circuit.

I can associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit;

I can compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches;

I can use recognised symbols when representing a simple circuit in a diagram.

Key Knowledge

Websites for more

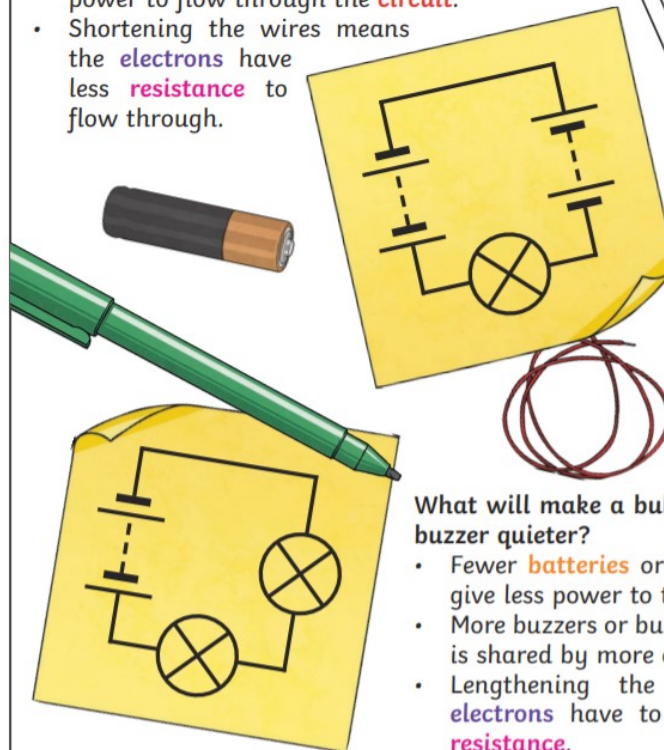
<https://www.bbc.co.uk/bitesize/articles/zw7q96f>

<https://www.theschoolrun.com/what-electricity>



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.

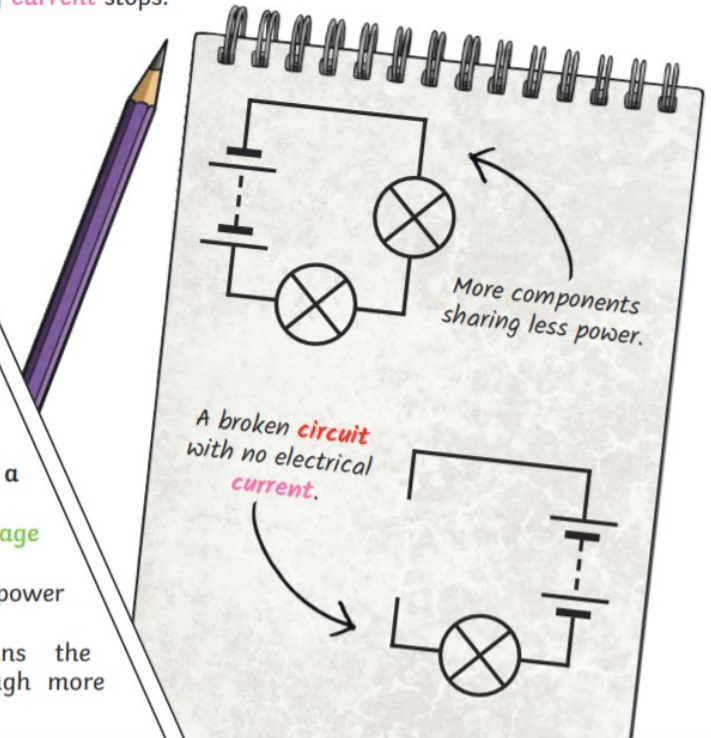


What will make a bulb dimmer or a buzzer quieter?

- 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**.

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.



It's Electrifying