

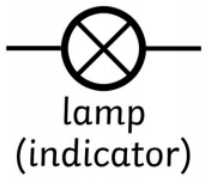


Electricity — Oak Class-Year 5 and 6

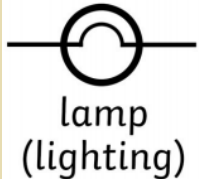
What should I already know?

- Common appliances which use electricity
- Components of a simple circuit
- Function of a switch in a circuit
- Recognise common conductors and insulators

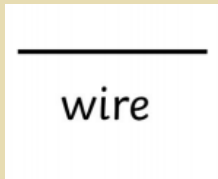
Components of a circuit and their symbols



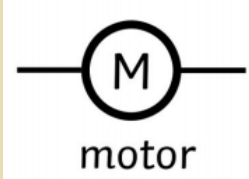
lamp
(indicator)



lamp
(lighting)



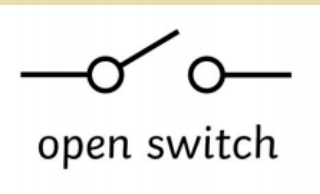
wire



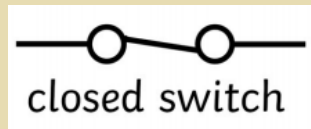
motor



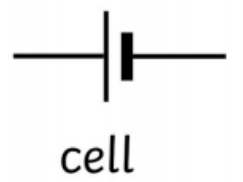
buzzer



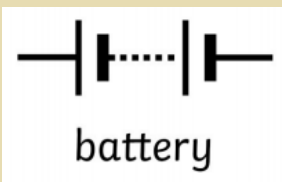
open switch



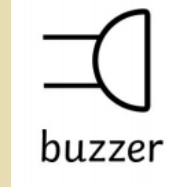
closed switch



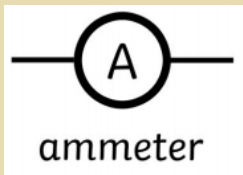
cell



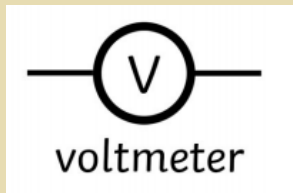
battery



buzzer



ammeter



voltmeter

These symbols can be used to create electrical circuit diagrams

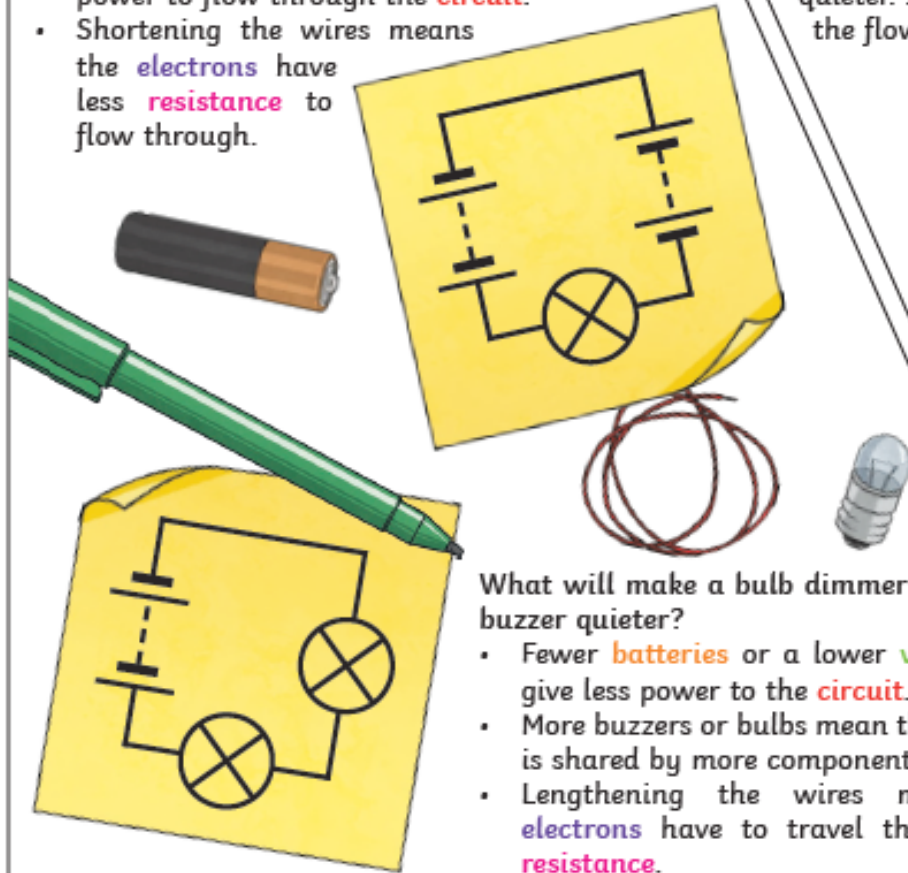
Key Vocabulary

circuit	A path that an electrical current can flow around
cell/battery	A device that stores energy as a chemical until needed. A cell is a single unit. A battery is a collection of cells.
symbol	A visual picture that stands for something else
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 electric circuit

Key knowledge

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.

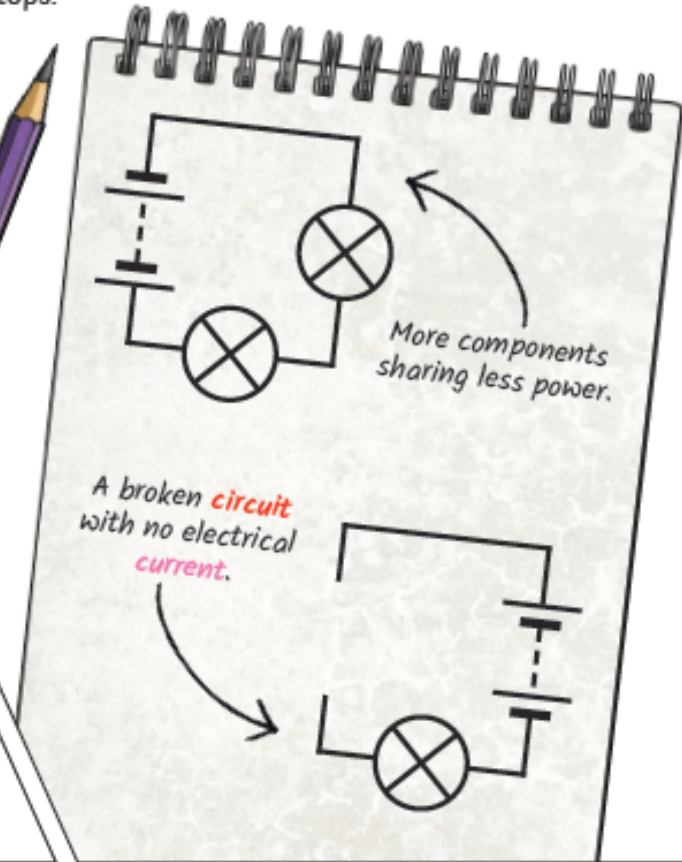


What will make a bulb dimmer or a buzzer quieter?

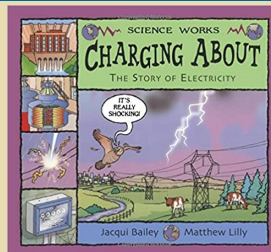
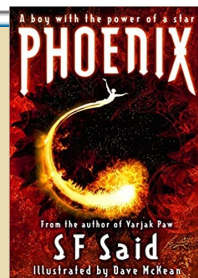
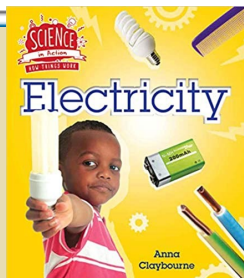
- Fewer **batteries** or a lower **voltage** give less power to the **circuit**.
- More buzzers or bulbs mean the power is shared by more components.
- Lengthening the wires means the **electrons** have to travel through more **resistance**.

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.



Key Texts



Key websites

- <http://www.primaryhomeworkhelp.co.uk/revision/Science/electricity.htm>
- <https://www.bbc.co.uk/bitesize/topics/zj44jxs>
- <https://www.theschoolrun.com/homework-help/thomas-edison>
- <https://www.viridor.co.uk/who-we-are/learning/>