



Year 6 Science

Electricity

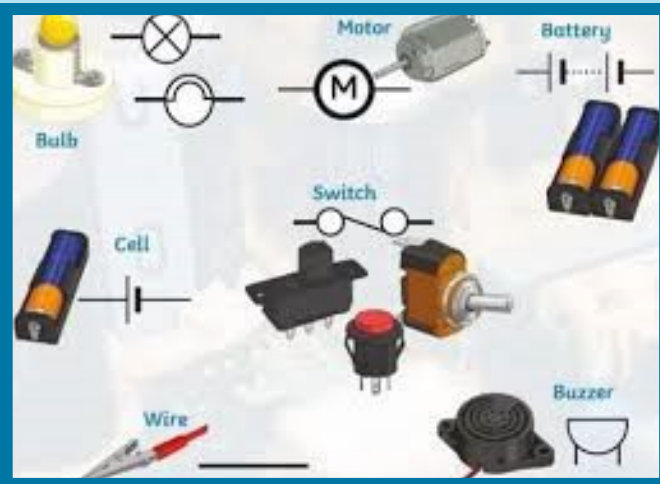
Things you should already know;

- That common appliances run on electricity
- How to construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers
- To be able to investigate whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery
- That a switch opens and closes a circuit and what is required to light a bulb in a simple series circuit
- To know that some materials are conductors and insulators, and know that metals are good conductors.

Key Knowledge

What will make a bulb brighter or a buzzer louder?

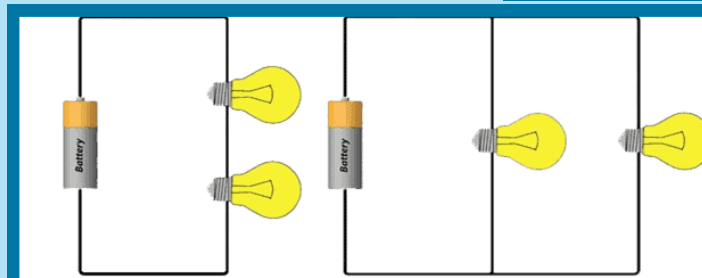
Understand how to draw (using electrical symbols) and make a series and parallel circuit with a different number of components. Explore different kinds of switches.



New Learning for Year 6.

- To associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit
- To 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
- To use recognised symbols when representing a simple circuit in a diagram.

Lamp / bulb	Motor	Switch	Cell / battery
Buzzer	Ammeter	Wire	Voltmeter



Amazing Facts

Electrical eels can produce up to a 600-volt shock.
Electricity was first discovered in 600BCE.

LED Bulbs use 80% less electricity.
54% of all electricity is wasted.



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Key Vocabulary

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 electrical current is measured.
Voltage	The force that makes the electrical current move through the wires. The greater the voltage, the more current will flow.
Resistance	The difficulty that the electrical current has when flowing around a circuit.
Electrons	Very small particles that travel around an electrical circuit.

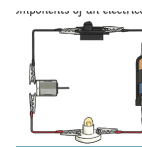
Sticky Learning.

Can you answer any of these questions in your

Why is it important to save electricity? How many ways can you think of to save electricity?

Explain how you use electricity in your everyday life.

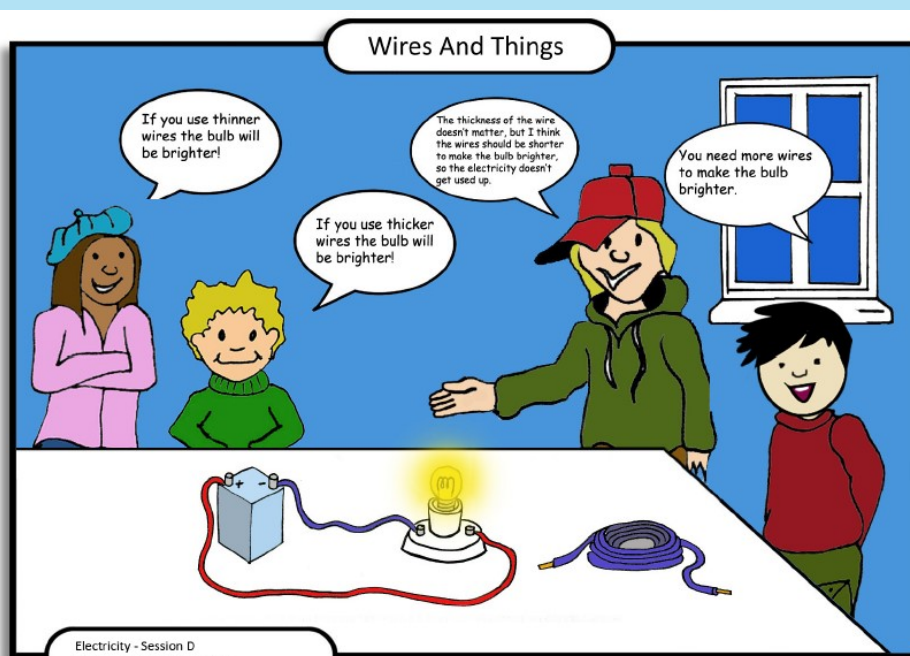
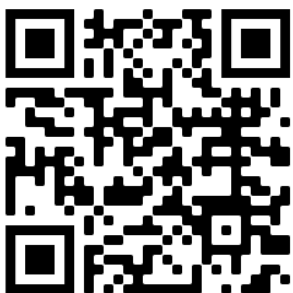
How many components of an electrical circuit can you name?



Scan this and have a go at an Electricity quiz!



Fancy a challenge? How much Science can you remember? Scan the code and pick a quiz about any of your topics from Years 3 to 6!



'Electricity is the best scientific discovery ever made'. Do you agree? Explain your answer.

Electricity must be treated with care. How can you make sure that you stay

Electric cars are becoming more common. They are better for the environment than petrol or diesel cars. What do you think the cars of the future will be like? How do you think they will be powered?