



electricity	The flow of an electric current through a material, e.g., from a power source through wires to an appliance.
appliances	A piece of equipment or a device designed to perform a particular job, such as a washing machine or mobile phone.
battery	A device that stores electrical energy as a chemical. Two or more cells joined together form a battery.
circuit	A pathway that electricity can flow around. It is based around wires and a power supply. Examples of components (parts) you can add in to a circuit are bulbs, switches, buzzers and motors.

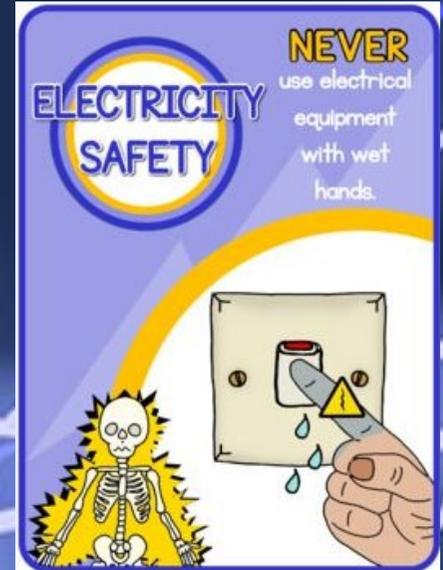
Electrical Components



Conductors and Insulators

- Materials that allow electricity to pass through to create a complete circuit are called electrical conductors.
- Materials that do not allow electricity to pass through and do not complete a circuit are called electrical insulators.

conductors	steel	copper
insulators	wood	plastic

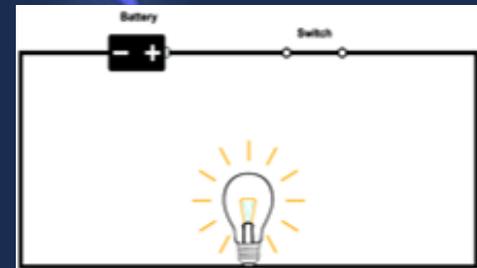


Bright Sparks



Key Facts

- A circuit contains a battery (cell), wires and a component that requires electricity to work (bulb, motor or buzzer).
- Electrical current flows through the wires from the battery (cell) to the bulb, motor or buzzer.
- A switch can break or reconnect a circuit.
- A switch controls the flow of the electrical current around the circuit. When the switch is off, the current cannot flow. This is not the same as an incomplete circuit.



Simple Circuit

A **complete circuit** is a loop that allows electrical current to flow through wires.

mains electricity	Electricity supplied through wires to a building.
electrical conductor	A conductor of electricity is a material that will allow electricity to flow through it.
electrical insulator	Materials that are electrical insulators do not allow electricity to flow through them.

BRIGHT SPARKS—YEAR 4

English

As writers, we will learn how to create mood and tension in narratives by selecting specific words, phrases, and sentence types. We will develop expanded noun phrases to add detail and use fronted adverbials and subordination to vary sentence beginnings. We will also use cause and effect conjunctions accurately to write explanation texts.

Wray Common Citizens

This half term our assemblies will explore the British values of *democracy, the rule of law, individual liberty, mutual respect and tolerance of different faiths and beliefs*. We will link these to Anti-Bullying Week by reflecting on how important it is that we celebrate differences and stand up for what is right. Children will also make connections to shared Indian values such as *respect, community harmony and truthfulness*, recognising how both cultures promote kindness and inclusion for all.

Maths

As mathematicians, we will extend our multiplication and related division fact knowledge (6, 7, 9, 11 and 12). We will refine and develop multiplication and division calculation strategies. We will apply multiplication and division knowledge to solve word problems including the use of the bar model.

CAPTURE

This half term, we will CAPTURE our learning by **persevering**. We will:

Develop stuck strategies, continue to have a go, keep trying and view mistakes as learning opportunities, be committed to success, sustain concentration to complete our targets.

Curriculum Coverage

RE

In RE, we will explore the key beliefs of Sikhi, in particular, the importance of equality. We will gain an insight into what many Sikhs value and how they express this through their community life, commitment to Pray, Work and Give and the wearing of the 5Ks.

PE.

In netball, we will be learning the footwork rule and developing ball passing skills to play a netball match.

In tennis, we will develop our racket and ball control. We will learn to return the ball using forehand and backhand techniques.

Design & Technology

We will design and make a light box with a working electrical circuit. We will make our light boxes using a step by step plan, reflecting on our designs as the product develops. Finally, we will evaluate our light boxes, explaining what went well and what could be improved.

PSHE

Our focus will be **Conflict Resolution and Anti-Bullying**. We will be able to recognize that bullying can take place online. We will give examples of situations that could lead to someone choosing to bully. We will understand why we are all affected by conflict. We will explain the choices we have in a moment of conflict and how our actions can escalate or deescalate a situation.

As part of RSE, we will talk about some changes that happen during puberty; specifically menstruation in girls.