

St. Mary's Catholic Primary School



Subject: Electricity

Topic: Electricity

Year: 6

Strand: Physics

What should I already know?

- How to make a simple circuit
- A range of appliances that run on electricity
- The name of appliances that run on batteries and those that run on electricity from the mains
- The name of equipment you would use to make an electrical circuit
- The purpose of a switch in a circuit
- The name of electrical insulators and electrical conductors

Electrical Conductors	Electrical Insulators
Copper	Rubber
Iron	Wood
Steel	Plastic
Silver	Paper
Gold	

What am I going to learn?

- The main circuit symbols

Component	Symbol	Purpose
Cell (Battery)		Provides electrical energy
Power supply		Alternative to using cells
Wire		Allows current to travel
Bulb/light		Converts electrical energy into heat and light
Motor		Converts electrical energy into movement energy
Buzzer		Converts electrical energy into sound energy
Switch		Allows circuit to be opened or closed

Important facts to know by the end of the unit:

- Know that the brightness of a bulb is associated with the voltage
- Compare and give reasons for variations in how components work
- Use recognised symbols when representing a simple circuit in a diagram
- Construct simple series circuits
- Be able to answer questions about what happens when they try and different components, for examples, switches, bulbs, buzzers and motors

Vocabulary

Conductor: materials that let electricity pass through them easily.

Insulators: plastic, wood, glass and rubber are good electrical insulators.

Socket: a socket is a safe device to plug your electrical items into at home.

Series circuits: a series circuit is one that has more than one resistor, but only one path through which the electricity (electrons) flows.

Cell: a device that is used to generate electricity, or one that is used to make chemical reactions possible by applying electricity.

Volts: voltage is an electrical potential difference, the difference in electric potential between two places.

Generator: a machine that converts energy into electricity.

FUN FACTS

Electricity travels at the speed of light. That's more than 186,000 miles per second!

Electricity comes from the power station, the wind, the sun, water and even an animal's poo!

Electricity is a type of energy that build up in one place (static), or flow from one place to another (current electricity).

Coal is the biggest source of energy for producing electricity. Coal is burned in furnaces that boils water and creates steam.

A popular way of generating electricity is through hydropower. This is a process where electricity is made by water which spins turbines attached to generators.

A bolt of lightning can measure up to 3,000,000 volts, and it lasts less than one second!

Websites:

<http://www.learningcircuits.co.uk/index.html>

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

<https://www.bbc.co.uk/bitesize/topics/zj44jxs>