



Welton Primary School—Science Knowledge Organiser



Year: 4

Electricity

Physics

What should I already know?

- I know about similarities and differences in relation to places, objects, materials and living things.
- I can talk about the features of their own environment.

Uses of Electricity

- Electricity is a type of energy.
- It is used to power lots of different things, including many items that we use in everyday life.
- Electricity can be created in a number of different ways. For example: burning fossil fuels, solar power, wind power and water power.



Vocabulary

electricity	A form of energy that is carried by wires and used to provide heating, lighting, and power devices.
plug	A device with 2 or 3 prongs on the end of an electrical cord.
positive	Where an electric charge flows into the battery.
negative	Where an electric charge flow out
electrical	An object that has been invented
mains	Where the supply of water, electricity, or gas enters a building.
electrical circuit	A complete route around which an electric current can flow.
component	Parts that something is made of.
loose connection	An incomplete or broken loop where electricity cannot flow.
short circuit	To disrupt an electrical circuit.
symbol	A drawing or shape that represents an object.

Simple Series Electrical Circuit

<p style="text-align: center;">Complete Circuit</p>	complete circuit	A complete loop with electricity flowing the way it is supposed to flow.
	cell	A single source of stored power.
	battery	One or more cells together form a battery that gives power.
	connection	Joining 2 or more components together.
	crocodile clip	Sprung metal clip with teeth used to make a temporary connection.
	bulb	The glass part of an electric lamp, which gives out light when electricity passes through it.
	switch	A small control that you use to turn a device on or off.
	wire	A long thin piece of metal used to carry an electric current.
	buzzer	An electrical device that is used to make a buzzing sound.
	motor	A device that uses electricity or fuel to produce movement.

Conductors and Insulators

<p>When they are placed in a circuit, some materials allow electricity to pass freely through them. These are called electrical conductors. Metal is a good conductor.</p>	<p>CONDUCTOR allows the energy to pass through it. Steel</p>	<p>When they are placed in a circuit, some materials do not allow electricity to pass freely through them. These are called electrical insulators.</p>	<p>INSULATOR does not allow the energy to pass through it. Wood</p>
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Conductors

Silver Gold Copper Steel Sea Water

Insulators

Rubber Glass Oil Diamond Dry Wood