



# Science Knowledge Organiser

This is physics.  
Physics is the study of the relationship of objects, forces, and energy.

## Electricity



Nikola Tesla

**Key Vocabulary**

- mains electricity
- switch
- motor
- electricity
- bulb
- circuit

**Prior Knowledge**

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.

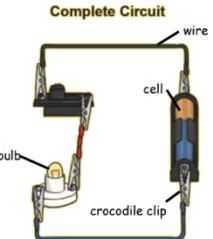
A conductor of **electricity** is a material that will allow **electricity** to flow through it. Metals are good conductors. Materials that are electrical insulators do not allow **electricity** to flow through them. Wood, plastic and glass are good insulators.

**Key Knowledge**

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.

Many everyday appliances rely on electricity for them to work. Some appliances use mains electricity (are plugged into a socket) and others have a battery to make them work.

Simple Series Electrical Circuit		
	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**

**Insulators**

- |        |      |        |       |           |        |       |     |         |          |
|--------|------|--------|-------|-----------|--------|-------|-----|---------|----------|
| Silver | Gold | Copper | Steel | Sea Water | Rubber | Glass | Oil | Diamond | Dry Wood |
|--------|------|--------|-------|-----------|--------|-------|-----|---------|----------|