

Different types of electricity and how it has changed over time.



We have two types of electricity. Natural and Man-Made.

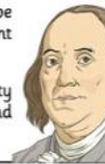
Natural: e.g. static, lighting, electric eel

Man-Made: e.g. solar, wind, nuclear, power station

Benjamin Franklin was the first person to study electricity in depth. One of his most important findings was proving that lightning was electrical (it had been thought of as different up until then). He flew a kite during a storm, to which he had attached a key. When the kite was indeed hit by lightning, he felt electric sparks from the key.

He was very fortunate not to be electrocuted! This is not an experiment that needs to be repeated!!

He was also the first to store electricity and knew it consisted of positive and negative charges.



Alessandro Volta invented the first battery – which was known as the 'voltaic pile' as it was made of layers of zinc and copper which was either combined with sulphuric acid or saltwater brine to create an electric current.

Volta's name was also the basis for the following words:

Voltage: This is the electric force that causes free electrons to move from one atom to another.

Volt: Is the unit of measurement for Voltage (written as V).



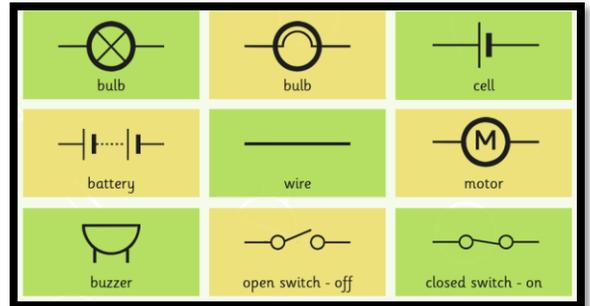
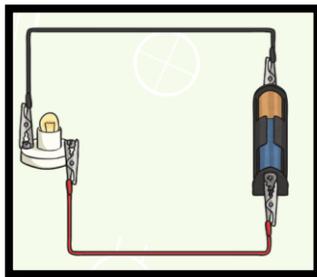
To investigate a battery made from a lemon an hypothesis on the outcome.



We will use scientific investigation techniques how you can use a lemon to complete a circuit.

To power a small bulb you will need to create more battery cells and connect them together. This will create a higher voltage.

I can recognize circuit symbols and use them to draw and interpret electrical circuits.



This is a **cell**. It is a single unit, containing two electrodes and an electrolyte.

A **battery** is the scientific name for a collection of cells joined together.

Insulators are materials which do not conduct electricity, e.g. wooden spoon.

Conductors are materials which do conduct electricity, e.g. copper wire

Vocabulary Tier 3

- Voltage
- Cell
- Motor
- Electrons
- Positive
- Negative
- Static electricity
- Insulators
- Conductors

Vocabulary Tier 2

- Circuit
- Circuit diagram
- Circuit symbol
- Battery
- Bulb
- Buzzer
- Switch

