



Key Vocabulary

Electricity	The flow of an electric current or charge through a material, e.g. from a power source through wires to an appliance
Generate	To make or produce.
Renewable	A source of electricity that will not run out, e.g. solar, nuclear, geothermal, hydro and wind.
Non-renewable	A source of energy which will eventually run out and no longer be able to be used to make electricity, e.g. coal, oil and natural gas (fossil fuels).
Appliances	A piece of equipment or a device which performs a certain job, e.g. washing machine or mobile phone.
Battery	A device which stores electrical energy as a chemical.
Circuit	A pathway that electricity can flow around. It includes wires and a power supply and may include bulbs, switches or buzzers.
Conductor	A material which is made up of free electrons which allow an electrical current to pass through.
Insulator	A material which has no free electrons so no electric current can be made.

National Curriculum Expectations:
Science

- Identify common appliances that run on electricity
- Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers
- Recognise some common conductors and insulators, and associate metals with being good conductors.

Useful Websites:

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

<http://www.sciencekids.co.nz/electricity.html>

<https://www.coolkidfacts.com/electricity-facts/>

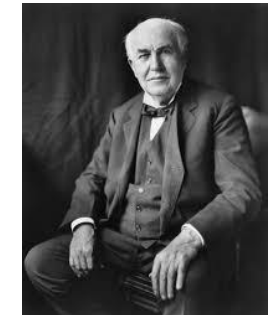


Thomas Edison

Thomas Edison was born in 1847 and died in 1931. He lived in the state of New Jersey in the US.

He is known as one of the greatest inventors in history.

He invented the light bulb, the phonograph (which could record and play sound) and an early video camera.



Electricity can be generated from wind power used to turn windmills and hydroelectric power from water used in dams. The Sun's rays can be converted into electricity by solar panels.

Coal, oil and natural gases are fossil fuels which, when burnt, produce heat which can be used to generate electricity.

Nuclear energy is created when atoms are split. This creates heat which can be used to generate electricity. Geothermal energy is heat from the Earth that is converted into electricity.

Key Knowledge



Electricity can only flow around a complete circuit that has no gaps. There must be wires connected to both the positive and negative end of the power supply/battery.

Switches can be used to open or close the circuit. When off, a switch 'breaks' the circuit to stop the flow of electrons. When the switch is on, the circuit is complete and the electrons are able to flow around the circuit.

