

## Year 4 Electricity

### Key Vocabulary

**Circuit**

A system of electrical components that make up an electrical circuit

**Cell**

Converts energy to electricity

**Wire**

A length of material that conducts electricity

**Bulb**

A device that provides light when electricity passes through it

**Appliance**

A device designed to perform a task

**Batteries**

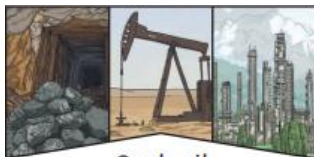
A collection of cells

**Current**

The steady flow of electrons

**Voltage**

A collection of cells



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

**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.



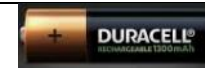
Nuclear energy is created when atoms are split. This creates heat which can be used to **generate electricity**. Geothermal energy is heat from the Earth that is converted into **electricity**.

There are two main types of electricity:

Mains Electricity



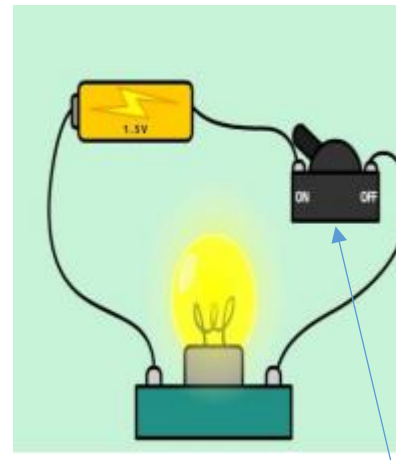
Electricity from batteries



Natural electricity occurs in the form of lightning or static electricity.

This is a simple circuit. An electric current flows around the circuit. The current is the flow of electrical charge.

Some things allow electric current to pass through (conductors) and some things do not (insulators).



Good conductors: metals such as copper iron and steel.

Good insulators: Plastics and wood.

Switches can be used to stop or allow electrical current to flow around a circuit.