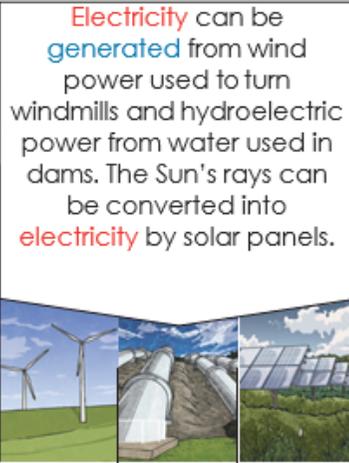## Key Vocabulary

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. These include solar, nuclear, geothermal, hydro and wind.
non-renewable	This source of energy will eventually run out and so will no longer be able to be used to make electricity. These include fossil fuels – coal, oil and natural gas.
appliances	A piece of equipment or device designed to perform a particular job, such as a washing machine or mobile phone.
circuit	A pathway that electricity can flow around. It includes wires and a power supply and may include bulbs, switches or buzzers.
battery	A device that stores electrical energy as a chemical.

Key Knowledge

Lightning and static electricity are examples of electricity occurring naturally but for us to use electricity to power appliances, we need to make it.

Coal, oil and natural gases are fossil fuels which, when burnt, produce heat which can be used to generate electricity.
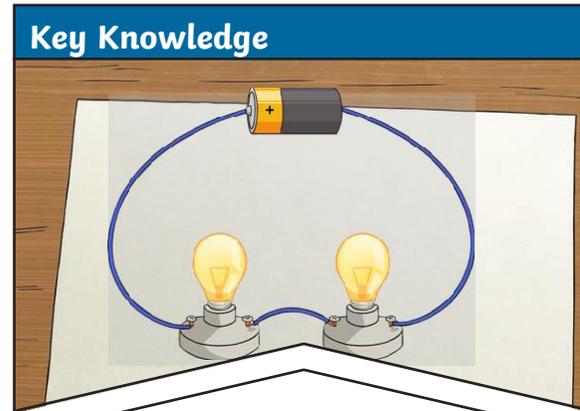
Electricity can be generated from wind power used to turn windmills and hydroelectric power from water used in dams. The Sun's rays can be converted into electricity by solar panels.
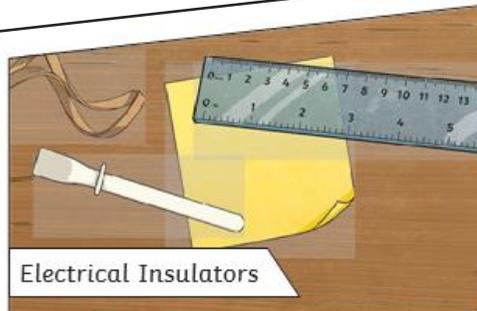
Nuclear energy is created when atoms are split. This creates heat which can be used to generate electricity. Geothermal energy is heat from the Earth that is converted into electricity.

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.

A conductor of electricity is a material that is made up of free electrons which can be made to move in one direction, creating an electric current. Metals are good conductors. Electrical insulators have no free electrons and so no electric current can be made. Wood, plastic and glass are good insulators.

Electrical Conductors

Electrical Insulators

Scratch Key Vocabulary

sprite	A sprite is a character or object in your game or animation.
stage	The stage is the background of the project
iteration	Iteration or loops are used as a way of repeating instructions

Key Knowledge

What is Scratch?
Scratch is a visual programming language that allows you to create interactive stories, games and animations by dragging blocks of scripts

SCRATCH

Sprites
A sprite is the character in the animation. Every Scratch program is made up of sprites and scripts (instructions) that control them. Scripts are programmed to make the sprites do something. Sprites can be moved around, change their appearance, and are controlled by the player.