Year 4



## Electricity

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## **Science**

Year 4

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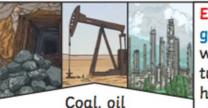
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### Pre existing knowledge

- Electricity is a form of energy that can be carried by wires and is used for heating and lighting, and to provide power for devices.
- Sources of light and sound may need electricity to work. •

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



and natural gases are

fossil fuels which, when

burnt, produce heat

which can be used to

generate electricity.

Electricity can generated wind power used to turn windmills hydroelectric power from water used in dams.

The Sun's rays can be converted into electricity by solar panels.





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 Vocabulary	
Circuit	A pathway that electricity can flow around. It includes wires and a power supply and may include bulbs, switches or buzzers.
Electricity	The flow of an electric current or charge through a material, eg. from a power source through wires to an appliance.
Generate	To make or produce.
Battery	A device that stores electrical energy as a Chemical.
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.

#### What are electrical conductors and insulators?

Objects that are made from materials that allow electricity to pass through create a complete circuit and are called electrical conductors.

Objects that are made from materials that do not allow electricity to pass through and do not complete a Circuit are Called electrical insulators.

A complete circuit is a loop that allows electrical current to flow through wires.

a battery (cell), wires and an appliance that electricity to work (such as a buzzer).

