

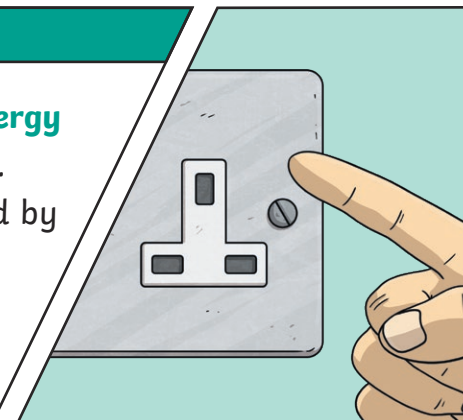
Key Vocabulary Overview

energy	provides the ability to do work, resulting in light, heat or motion
electricity	a form of energy that travels through wires
mains electricity	energy that is delivered to homes, schools and businesses through an electric grid
battery-powered	objects that require cells that convert stored chemical energy into electrical energy
energy usage	the amount of energy used
renewable energy	comes from sources that do not run out or that can replenish themselves, such as water, wind and the Sun
non-renewable energy	comes from sources that cannot be replaced and could be used up, such as coal, oil and gas
appliance	a machine that is designed for a specific use and is usually powered by electricity (for example, a washing machine)
global warming	the slow increase in temperature across the planet

Electricity

Electricity is a form of **energy** that travels through wires.

Electricity can be provided by **mains electricity** or **battery-powered electricity**.



Renewable and Non-Renewable Energy

There are many different sources of **energy** that can be used to generate **electricity**. Some are renewable because they come from sources that do not run out or that can replenish themselves, whereas others are non-renewable because they come from sources that cannot be replaced and could be used up.

Renewable	Non-Renewable
wind	gas
solar	coal
hydropower	oil

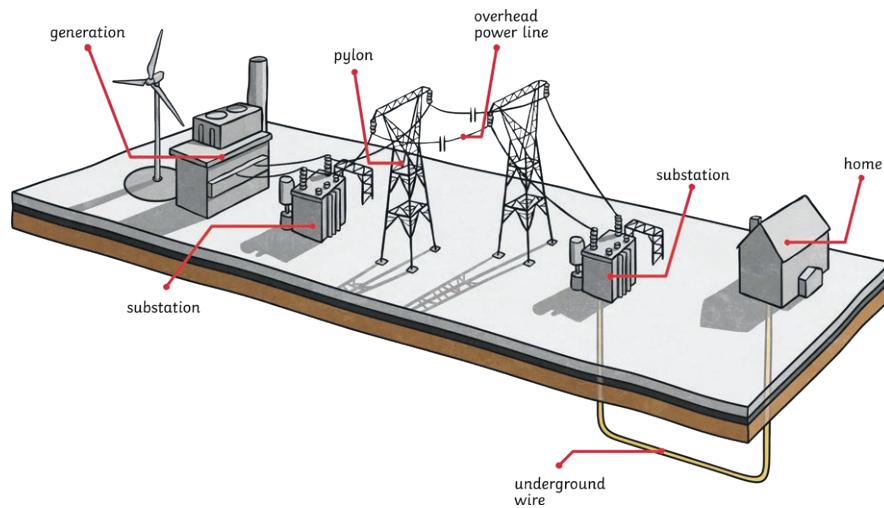
Renewable energy sources are better for the environment.



How Is Electricity Generated?

Electricity has to be generated. Much of the **electricity** we use in the UK is currently generated in power stations by burning fossil fuels.

The **electricity** generated in a power station is delivered by an electric grid to all the places that use it. An electric grid is a network of power lines, gas pipelines and storage facilities that work together to distribute **electricity**.



Effects of Fossil Fuels

Fossil fuels release carbon dioxide, a gas that contributes to **global warming**.

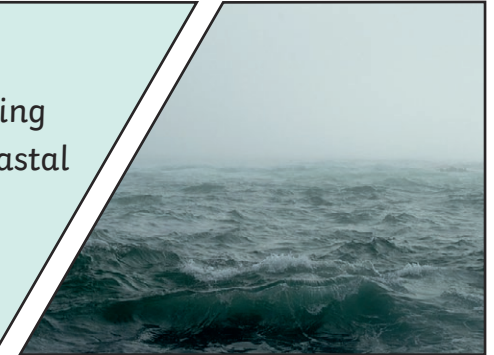
Global warming is the gradual increase in Earth's atmospheric temperature, causing shifts in temperature and weather patterns worldwide.

Effects of Global Warming

Melting ice caps and glaciers are shrinking polar habitats, making it harder for animals such as polar bears to hunt.



Rising sea levels from melting ice are also threatening coastal life worldwide.



Orangutans and other apes face increased droughts and forest fires, which are destroying their rainforest habitats.

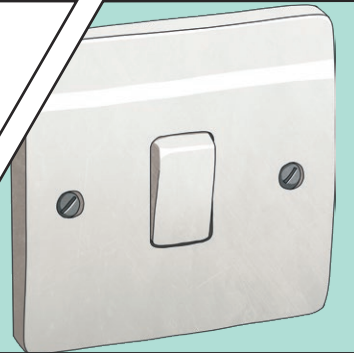


Scientists and climate activists are working with world leaders to reduce fossil fuel use and slow **global warming**.

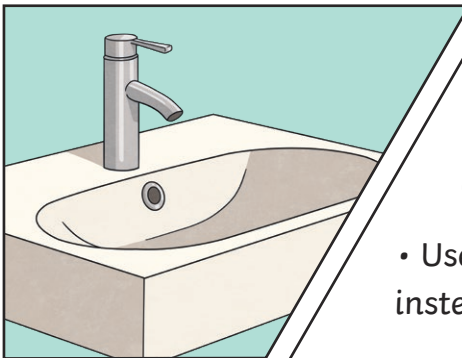
Reducing Energy Usage

How could you reduce **energy usage** at school or at home?

- Ensure that lights are switched off when they are not needed.



- Ask an adult to switch off plug sockets not in use.
- Turn devices off completely.



- Turn off taps after each use.
- Use a bowl to wash up instead of running water.

- Ask an adult to turn off or lower the heating.
- Wear jumpers when it's cold.
- Keep doors closed to prevent warm air from escaping.

