Key Vocabulary Overview

renewable	something that can be used again and again without running out
non-renewable	something that can only be used a set number of times before it runs out and cannot be replaced
fossil fuels	fuels made from dead plants and animals over millions of years
solar power	energy that is derived from the light of the Sun
wind power	energy that is derived from the wind
wind turbines	devices that collect energy from the wind and transform it into electricity
greenhouse gases	gases that collect in the Earth's atmosphere, trapping heat from the Sun and causing the Earth to warm up
global warming	the slow increase in temperature across the planet

Energy

Humans use a lot of energy, particularly in the form of electricity. Most of our electricity is currently generated by burning **fossil fuels**.

Coal is often used in factories to generate electricity or to make metals.

Oil is usually made into fuel for cars and other forms of transport.

Natural gas is often used to heat homes and businesses, as well as for cooking.

Fossil Fuels

Fossil fuels are made up of the remains of prehistoric plants and animals. While they provide lots of energy, burning them pollutes the atmosphere with **greenhouse gases**. The rising amounts of **greenhouse gases** in the atmosphere are causing **global warming** and climate change.

Renewable Energy

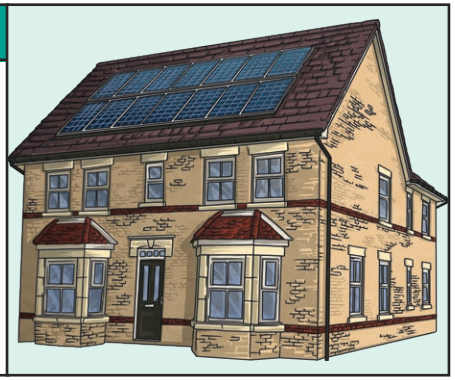
Renewable energy sources do not run out. They are able to continue generating electricity indefinitely. They also create fewer emissions of **greenhouse gases**.

Non-Renewable Energy

Fossil fuels are a non-renewable source of energy, which means that they will eventually run out.

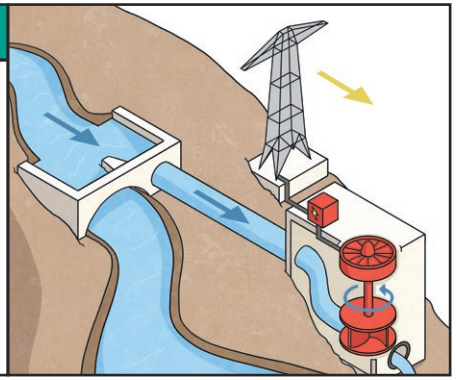
Solar Power

Solar energy is collected, via solar panels, from the light (and sometimes heat) of the Sun. Solar panels are usually grouped together in places where they have good access to sunlight.



Hydropower

Hydropower (also known as water power) utilises fast flowing or falling water to produce electricity. By building a dam to control the flow of water, we can use it to drive a turbine and generate electricity.



Wind Power

Wind can be converted into electricity by **wind turbines** – large, pinwheel-like structures that are often grouped together to make a wind farm. Wind pushes the blades of the **wind turbine**, which spin a shaft inside. The shaft is connected to a generator and, as it spins, the generator converts this spinning movement into electrical energy.

Geothermal Power

Geothermal power harnesses the heat inside the Earth to generate electricity. Pools of water under the Earth's surface are warmed by the heat radiating from the Earth's core. This hot water can then be used to generate steam to power turbines, producing electricity.