Renewable Energy

Year 6

Knowing More, Remembering More

Remembering previous learning

What is global warming? Global warming is the gradual increase in the Earth's temperature.
What are greenhouse gases? Gases that trap heat from the Sun and cause the Earth to warm up.
What is the greenhouse effect? The greenhouse effect is caused by greenhouse gases trapping heat from the Sun. This leads to global warming.
What are fossil fuels? Coal, oil and natural gas which can be burnt to power vehicles and generate electricity.
What are the effects of global warming? Glaciers and ice caps can melt. This can cause sea levels to rise, leading to flooding. Weather patterns can also change, leading to drought or flooding, making it harder to grow crops.
What does global warming affect? Global warming affects humans, animals and plants.
What is a carbon footprint? The amount of greenhouse gases released by an individual or a group of people.

In this unit children will...

- understand the differences between renewable and non-renewable energy sources.
- outline the advantages and disadvantages of non-renewable and renewable energy sources.
- understand that using non-renewable energy sources such as coal, oil and natural gas is contributing to global warming.
- research the different ways that renewable energy can be used to limit the impact of global warming, consider how they could incorporate renewable energy strategies in their local communities and schools and provide reasons for doing so.

Working Scientifically:

6.10 **Report and present findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations.**

6.12 Use scientific evidence to answer questions.

6.13 Make conclusions based on scientific evidence and from their own testing and findings.

Key Learning Steps:

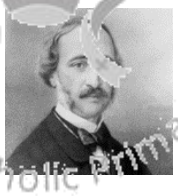
1. What is renewable energy?
2. Using renewable energy.

Key Vocabulary:

- solar power
- wind power
- renewable
- non-renewable
- solar panels
- wind turbine
- global warming
- greenhouse gases

Key Scientists and Sustainability Champions:

Classic
William Armstrong (1810-1900)
Inventor of hydro-electric power.



Classic
Charles Fritts (1850-1903)
Invented the first solar panel.

Contemporary
Jeanette Gitobu
Award-winning professional in the renewable energy sector.

Contemporary
Pope Francis
In his encyclical, Laudato Si, Pope Francis encourages us all to be better stewards of creation and take better care of our world.

Knowing More, Remembering More

Knowing more in Y6

What is solar power? Solar power uses light energy from the sun to generate electricity.
What is wind power? Wind power uses wind to generate electricity.
What are renewable energy sources? These are energy sources that will not run out, such as solar and wind power.
What are non-renewable energy sources? These are energy sources that will eventually run out, such as fossil fuels.
What is the largest source of greenhouse gas emissions in the UK? Burning fossil fuels.
What can help limit the impact of global warming? Using renewable energy sources, such as solar and wind energy.