

ENVIRONMENT ISSUES: Climate Change

What is climate change?

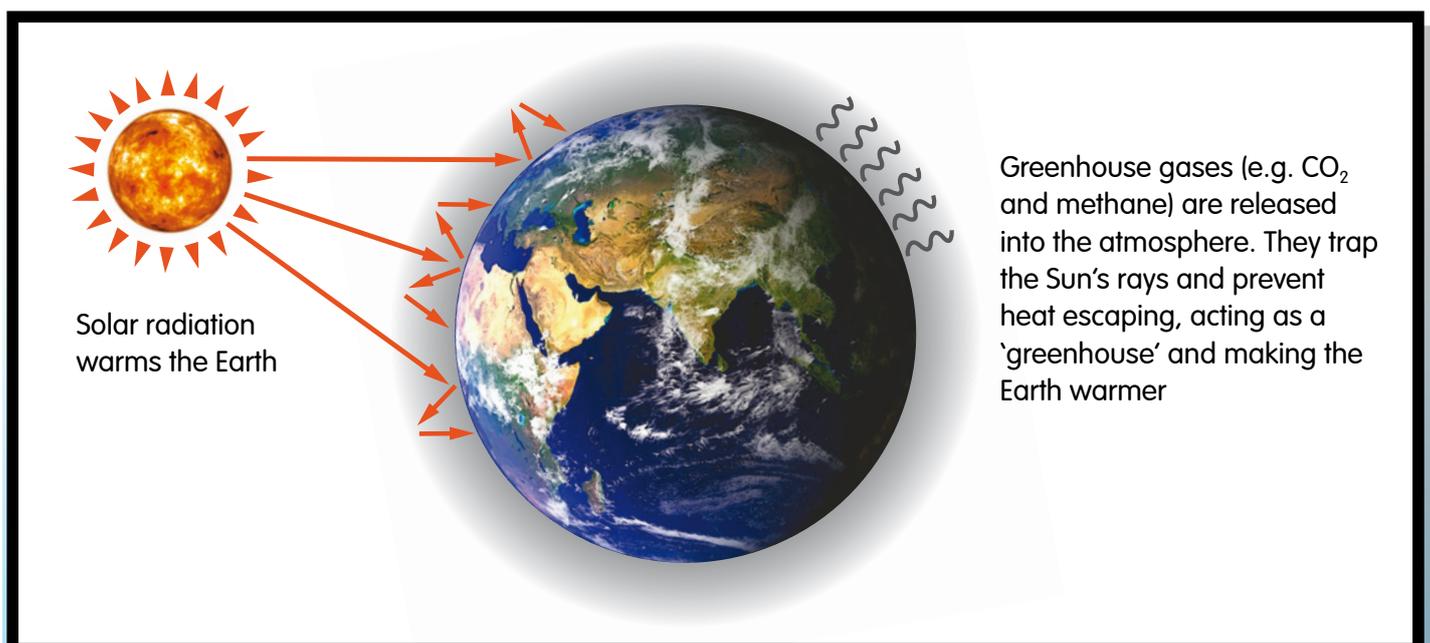
This refers to changes in climate over a long period of time. The Earth's climate has seen many significant changes in the past, although the term 'climate change' is commonly used now to describe the climate crisis we are currently facing. The immediate effects of this are evident from extreme weather changes happening all around the world – from floods to earthquakes, heavy rainfall or heat waves.

The Greenhouse Effect

The term 'global warming' refers to the warming of the Earth's atmosphere. Research has shown the Earth's temperature has risen 0.74 degrees Celsius since the turn of the century and is continuing to rise. This may not seem like much, but scientists say a temperature increase of just 2 degrees can cause even more extreme weather than we have seen so far!

Gases that are trapped in the atmosphere (many created by human activity) are the cause of this warming, as they trap radiation from the Sun, acting like a greenhouse and preventing heat from 'escaping' back into space. This is called the Greenhouse Effect.

Greenhouse gases include carbon dioxide (CO₂), which comes from burning fossil fuels and deforestation. Since trees absorb CO₂, the more trees that are cut down the more CO₂ there will be in the atmosphere, increasing the Greenhouse Effect. The other main greenhouse gas is methane, produced by rotting waste in landfills, through coal mining and is also released by cattle. Methane is 25 times more harmful than CO₂ in contributing to the Greenhouse Effect (and in effect, global warming). Effects of global warming include rising sea levels, melting glaciers and devastating floods. In the UK, we have seen increasing rain and cooler summers. Most scientists agree that humans have contributed to the rise of greenhouse gases, and that we will need to change our behaviour in order to slow this warming process.



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What is being done about climate change?

Climate change is a global problem that can't be solved by one individual. It has become a major topic for governments around the world, and many new laws, policies and government departments have been created to look at this issue.

Globally - Since the adoption of the Kyoto Protocol in 1997, world governments are trying to limit or reduce the production of greenhouse gases. The United Nations Climate Change Conference held in Copenhagen, Denmark in December 2009, was the next step towards countries negotiating a new global agreement on climate change. Although no agreement was made, the Conference did see countries such as the USA and China (the world's biggest carbon emitters) admit that something needed to be done to limit greenhouse gases.

Nationally - The UK Government has a department in place to handle climate change in the UK and has encouraged citizens to consider their carbon footprint. Initiatives such as Team Green Britain, which is linked to the London 2012 Olympics, encourage people to get together and do 'their part' to live a greener life and provide suggestions on how to do so.

Locally - There may also be things happening within your school or local community that you can get involved in to find out how you can be more eco-friendly.

Personally - You can help to do your part by reducing your carbon footprint – your individual contribution to carbon emissions. You can do this by reviewing how you live, and considering what changes you could make to be more sustainable. For example, you could look at:

- how you travel (e.g. walk rather than travel by car)
- energy used in your home – is it really needed? (e.g. turn lights off when you leave a room)
- waste created – how can you reduce your waste? (e.g. recycle or cut down on purchases)



Did you know?

- The average sea level around the UK is now 10 cm higher than it was in 1900.