

13 The Environment

- Global warming, greenhouse effect
- Climate change
- Deforestation, air and water pollution
- Destruction of the ozone layer
- Fossil fuels vs. green energy
- Reducing your carbon footprint
- Recycling, saving energy
- Sustainable development

The major environmental problems

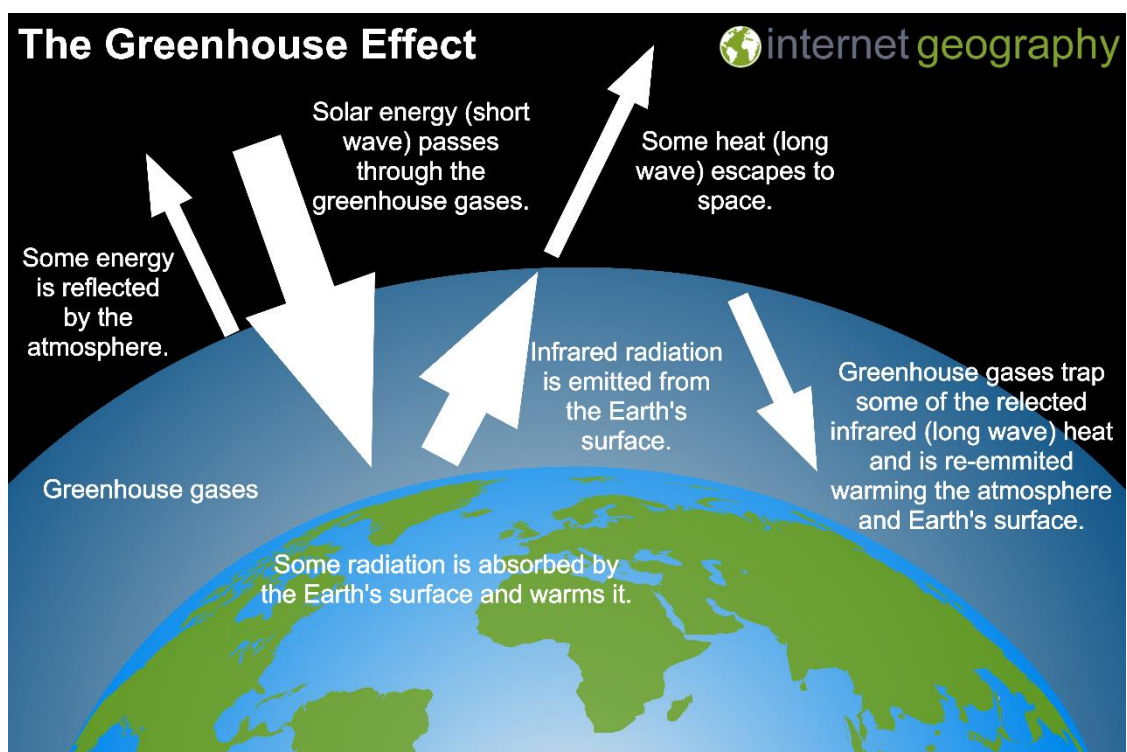
Global warming is one of the most serious problems facing the environment. It is **caused** by human activities like **burning fossil fuels (oil and coal)**, intensive agriculture and **deforestation** (cutting down the rainforests). Large amount of carbon dioxide (CO₂) that goes into the atmosphere means a larger **greenhouse effect** so the Earth's overall temperature is **increasing**. This could cause **rising** sea levels, **unpredictable** weather in the form of **flooding** or **drought**, hurricanes and large loss of life. Global warming is closely related to **climate change**. Scientists claim that the increase in overall global temperature is changing the climate.

The Greenhouse Effect

The Greenhouse effect is a naturally occurring phenomenon that keeps the Earth warm enough for life to exist. It is estimated that the Earth would be 33° colder without the greenhouse effect.

Like a greenhouse, the atmosphere allows most of the heat from the Sun to pass through it to warm the Earth's surface. Gasses then trap some reflected energy as glass does in a greenhouse.

The Sun's short-wave solar radiation enters the atmosphere. The heat is reflected from the surface of the Earth as long-wave radiation. The natural layer of greenhouse gases allows some heat to be reflected out of the Earth's atmosphere, but some heat is trapped by CO₂ and methane, keeping temperatures warm enough for life on Earth.



The ozone hole

Another serious problem is the destruction of the **ozone layer** by chemicals used in fridges, air conditioners and sprays. The ozone layer protects the Earth from the **ultraviolet rays** that can cause **skin cancer** in humans.

Other environmental problems are **acid rains**, air **pollution**, water pollution, etc.

What can YOU do to help protect the environment?

Reduce your carbon footprint (the amount of CO₂ YOU produce)!

- Buy locally grown fruits and vegetables because the transport of goods from distant places produces lots of CO₂.
- Limit meat consumption, especially beef
- Share your car journeys with someone else and plan how often you use the car.
- Hang out the washing instead of tumble drying it.
- Fill the kettle with only as much water as you need.
- Collect rainwater and use it in your garden.
- Turn down the hot water setting by two degrees.
- Turn down the central heating by one or two degrees. Put on an extra jumper.
- Switch off lights when not required.
- Separate your trash, bring recyclable items (paper, plastic, glass, metal, organic waste) into public recycling bins.
- Buy products that are environmentally friendly.
- Make sure to buy only what you need, to avoid waste

Recycling

Paper and cardboard can be recycled by mixing it with water and creating new paper or cardboard products. Glass bottles can be cleaned and used again or melted down and used for different purposes. Vegetable peelings or scraps of food can be put on a compost heap. Juice and milk boxes can be recycled. Plastic bottles can be melted down and made into plastic pipes, toys or clothes. Cans can be melted down and used again. Wood and timber can be shredded and made into chipboard.

Alternative energy

Alternative energy is energy that does not come from fossil fuels. It is clean and **renewable**. You can get clean energy from the **sun**, **water** and **wind**.

Sustainability

Sustainability refers to using resources in such a way that they will continue to be available in the future. Sustainability takes many different forms, but they all have some fundamental ideas in common. One is that the survival of humans depends on the natural environment. Another is that people must act with an awareness of the impact of their actions on the natural world. And a third is that people have a responsibility to balance the needs of the present day with those of future generations.