



THE GREENHOUSE EFFECT



1 WHAT IS THE GREENHOUSE EFFECT?

The greenhouse effect is a natural process where gases in the Earth's atmosphere trap some of the Sun's heat and keep the Earth warm enough for life.

Without the greenhouse effect, the Earth would be too cold for plants, animals, and people to survive.



Think About It!

Imagine the Earth wearing a blanket. Just as a blanket keeps you warm by trapping heat, greenhouse gases trap heat around the Earth.



2 HOW DOES THE GREENHOUSE EFFECT WORK?

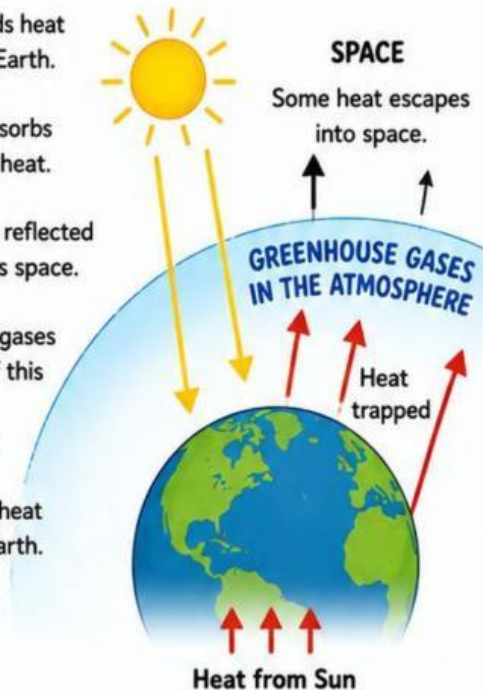
1 The Sun sends heat and light to Earth.

2 The Earth absorbs some of this heat.

3 Some heat is reflected back towards space.

4 Greenhouse gases trap some of this heat in the atmosphere.

5 The trapped heat warms the Earth.



3 WHAT ARE GREENHOUSE GASES?

Greenhouse gases are gases that trap heat in the atmosphere.

Examples:

Greenhouse Gas	Source
Carbon dioxide (CO ₂)	Burning coal, oil and gas
Methane (CH ₄)	Cattle, rubbish dumps
Water vapour (H ₂ O)	Evaporation
Nitrous oxide (N ₂ O)	Fertilisers



Important: Carbon dioxide (CO₂) is the main greenhouse gas produced by human activities.

4 HOW DO HUMANS INCREASE THE GREENHOUSE EFFECT?

People burn fossil fuels such as:

- Coal
- Oil
- Natural gas



These are used in:



Factories



Cars



Aeroplanes



Ships

When fossil fuels are burned, they release carbon dioxide into the atmosphere.

**More carbon dioxide =
More heat trapped = Warmer Earth**