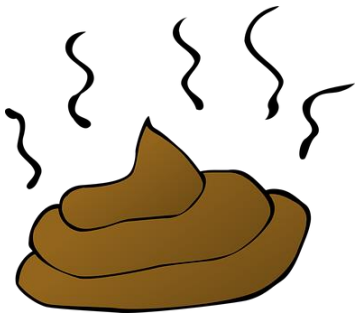
Learn along with Chris

The Greenhouse Effect

The sun warms our planet, Earth. Gases we call greenhouse gases, in the air, hold the heat around the Earth like a blanket on a cold day. If we didn't have these gases, we would all freeze but too much of them makes the planet warm up. This is what we call global warming. Some of these gases are natural but some of them are human-made. The 3 main gases are carbon dioxide (CO_2), methane and nitrous oxide.

Methane is made when plants die and break down. Farm animals all over the world eat plants. When these plants break down in their stomachs, they release methane as burps and farts. How bad can burping cows and sheep be though? Very bad!

One sheep can release 30 litres of methane a day and a cow can make 200 litres! A big bottle of Coke is two litres. A cow can burp up 100 coke bottles-worth of methane every day. Also, their manure releases nitrous oxide.



Carbon dioxide, is breathed out by animals, including us and is breathed in by plants, trees and bacteria in the seas and oceans, which in turn breathe out oxygen for us to breathe.

Everything is in balance.

When we burn fossil fuels - oil, coal, petrol and gas - as fuel, lots of carbon dioxide and nitrous dioxide goes into the air; the plants can't breathe in as much as we pump out so the balance tips and the greenhouse gases build up, heating the planet.

Why do we call them fossil fuels?

Fossils are what we call the bones of very, very old animals, like dinosaurs, when we dig them up. Over thousands of years, their bones become like stone, but their skin, muscles and fat turn into oil and gas. A similar thing happens to very old trees but these become coal.

Why is global warming bad?

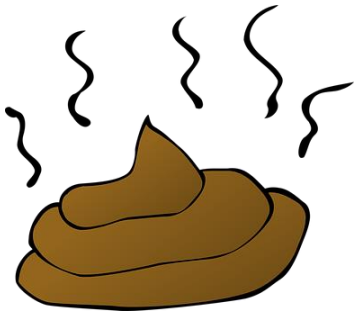
In general, people like warm weather but warming the planet too much is dangerous. Places covered in lots of ice like the Arctic and Antarctica heat up and the ice begins to melt into the seas and oceans. This causes the sea levels to rise, leading to floods. Also, certain plants, including crops that people rely on for food and for trade will not grow if the temperature changes too much.

A rise in temperature worldwide also increases the chances of extreme weather like tornadoes, storms and hurricanes. More heatwaves are also dangerous for people like the sick and elderly or in places where there is little shade or water available. Lastly, there are millions of tiny plants in the oceans that help to breathe in the carbon dioxide but if the seas and oceans get too warm, these could die out.

Activity ideas

- Create questions using the text, dependent on your learner's level.
- If the text is too long for one activity, it can be read over 2 or 3 lessons. Learners can recap what they learnt, in the last lesson, before carrying on.
- Read the text together, as a class and discuss the different parts of the text.
- Use the flashcard to recap the text, with your learners.
- Ask learners to read the text and then write what each of these words mean-
    - methane
    - CO2
    - manure
    - fossil fuels
    - greenhouse gases
    - fossils
    - extreme weather

Flashcards



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