

What is climate change?

What is global warming?

When we watch TV, drive somewhere in the car, fly away on holiday, or turn on a light, we are using fossil fuels (like coal, oil and gas). They are called fossil fuels because the rocks they come from are thousands of years old. Fossil fuels are burnt to make things like electricity and gas, and are also used for petrol. But these fuels emit greenhouse gases like carbon dioxide (CO₂).

Small amounts of greenhouse gases help the earth stay warm because they trap the sun's rays in our atmosphere. But now more and more of these gases are being emitted. This means that more and more of the sun's heat is being trapped and our world is getting hotter. This is called global warming and this is one of the reasons our climate is changing.

When people talk about **carbon emissions**, they usually mean the amount of carbon dioxide (CO₂) that is released into the air.

Every country emits carbon, but rich countries emit the most. On average, each person in sub-Saharan Africa emits less than one tonne of CO₂ a year. For example, each person in Senegal emits 0.4 tonnes a year, and in Mali, only 0.1 tonnes. The difference is huge when you compare it to figures from the UK, Ireland and the US. On average, each person in the UK emits 9.4 tonnes a year, and in Ireland the figure is 10.3 tonnes. In the US, each person emits about 20 tonnes a year.

What is happening to our planet?

- The warmer temperatures are causing glaciers and ice-caps to melt. Millions of people in Asia and South America need the water from the glaciers and ice-caps to live. Once the glaciers and ice-caps have gone, they cannot be replaced.
- The melting ice-caps and glaciers mean more water is pouring into the rivers and oceans. This can cause flooding, especially in countries that are very flat, like Bangladesh. Floods destroy crops and buildings, so many people have to leave their homes.
- Not having enough water is also a problem. Changing rainfall patterns mean that some parts of Africa have little or no rainfall. When there is a drought, people cannot grow crops, so they do not have enough food to eat.
- Warmer seas can lead to stronger storms and hurricanes. The number of hurricanes, tornadoes, floods and droughts is increasing.
- The Sahara desert is getting bigger (by 300 metres) each year. This means that there is less good soil where crops can grow.
- As more places become warmer and wetter, diseases like malaria (spread by mosquitoes) could spread to areas that did not have these illnesses before.
- There could be more fighting as things like water and food get harder to find.

CRAZY CLIMATE



Circle the things in the picture which emit greenhouse gases and cause global warming.