

Climate Change

What Is Climate Change?

- Climate change is the long-term changes in temperatures and weather. Scientists, using special equipment including satellites, have noted that the
- Earth is warming up. In fact, some of the hottest years ever recorded have been in the last twenty years.

Weather vs Climate

Weather is only temporary. It refers to the conditions outside 'right now' in a specific place. Rain, hurricanes, snow and tornadoes are all types of weather events. Climate, on the other hand, is more than a weather event. It is not simply just rain for one or two days - climate describes the weather conditions that are expected in an area at a particular time of year, over a very long time.

What Causes Climate Change?

Climate change is caused by the release of greenhouse gases into the atmosphere. Human activities are responsible for releasing some of these gases, such as through driving cars, creating electricity and burning fossil fuels. These processes create extra greenhouse gases, which make our planet unnaturally hot. Plants, soils and the oceans can absorb these dangerous gases but they can't keep up with the amount being produced.

Did You Know...?

CO₂ (carbon dioxide) is one of the main greenhouse gases and levels are currently at their highest in two million years!

Disclaimer: While every care has been taken to ensure that there are no significant emotional triggers regarding eco-anxiety for learners in this lesson, any feelings that arise should be embraced and discussed non-judgementally.

What Are the Effects of Climate Change?

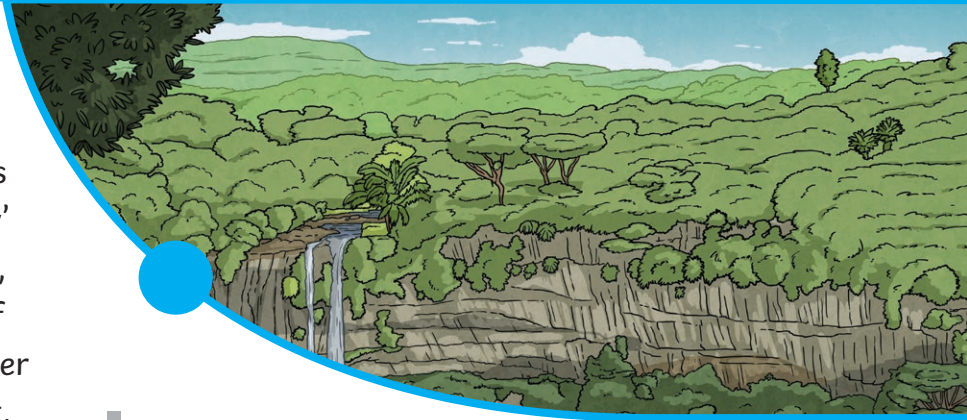
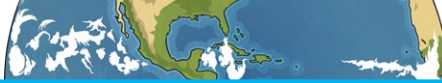
Climate change over time will result in many risks to both humans and wildlife. Some of these risks could include:

- More extreme weather – including more heatwaves, more powerful hurricanes and more extreme rainfall;
- Melting ice – resulting in rising sea levels, more flooding and increased threats to marine habitats;
- Changing oceans – including threats to animal life and disruptions to food chains.

What Can We Do to Help?

Everyone can play a part by making the following changes:

- choosing cleaner ways to power our homes and cars;
- turning off lights and appliances that are not in use;
- planting trees;
- walking or cycling if you can;
- recycling and reducing food waste.



Questions

1. What is climate change? Tick one.

- ☐ the short-term changes in temperatures and weather
- ☐ the long-term changes in temperatures and weather
- ☐ the daily weather
- ☐ the process of lakes freezing on our planet

2. Climate change is caused by the release of greenhouse gases into the atmosphere. Which of the following greenhouse gases has the highest levels in two million years?

- ☐ Carbon Dioxide (CO₂)
- ☐ Methane (CH₄)
- ☐ Nitrous Oxide (N₂O)
- ☐ Hydrofluorocarbons (HFCs)

3. Draw **three** lines that expand on the effects of climate change.

More extreme weather
will result in...

threats to animal life.

Melting ice will
result in...

rising sea levels
and flooding.

Changing oceans will
result in a...

more heatwaves and
more extreme rainfall.

4. Underline one word in the following sentence that means something does not last.

Weather is only temporary.

5. Fill in the missing word.

Climate change over time will result in many _____ to both humans and wildlife.

6. List **two** changes that people can make to reduce the effects of climate change.
