

Climate Action



Introduction

What is Climate change?

Climate change refers to the phenomenon that is causing the earth to become warmer which means that our climate and our weather systems are changing.

When we burn fossil fuels to run our homes, factories and cars, carbon dioxide is produced. They release carbon dioxide which is the main greenhouse gas. Greenhouse gases cause the earth to heat up by trapping the sun's heat in the earth's atmosphere - acting like a greenhouse.

Most scientists (95%) now agree that human activity is largely responsible for climate change and that the choices we make today will decide the future of our climate.

Did you know?

- In 2011 in Ireland the average amount of carbon dioxide emissions per person was about 8 tonnes, so their carbon number is 8.
- The average carbon number of a person in the USA is 17. Why do you think they produce more than us?
- The average carbon number of a person in India is 2. Why do you think they produce less than us?
- People in developed countries use more energy than those in developing countries. Why do you think that is?

What are the impacts of climate change?

- The polar ice caps are melting.
- Droughts and flooding are more common.
- Deserts are getting bigger.
- Some animals and plants are at risk of becoming extinct.
- Extreme weather like storms or hurricanes will become more common.
- People may have to move from their homes because of the flooding and destruction caused by cyclones, hurricanes, storms and landslides.



What is the greenhouse effect?

Greenhouse gases, like carbon dioxide let the heat of the sun into our atmosphere but don't allow the heat to escape (like a greenhouse). Because of the amount of fossil fuels we burn to meet our energy needs, we are producing too much carbon dioxide. More heat is being trapped than before and this is causing climate change.

What is a carbon footprint or carbon number?

It measures how much carbon dioxide each of us produce by, for example, using energy in our homes and when we travel. We can measure this by working out our carbon number. We can take climate action by lowering our carbon number.

What Climate Action can we take?

There are a lot of simple actions each of us can take to reduce our carbon footprint and take climate action. You can use your campaign to encourage people to:

- Plant native trees, and plants; they provide food and shelter for birds, insects and absorb CO₂.
- Think about the things you buy – food, clothes, toys, cosmetics – where they come from, how they are made, how far they are travelled, how they are packaged. Choose products that are produced locally, using environmentally friendly materials and practices, with less packaging.
- Walk or cycle on short journeys.
- Choose energy efficient products e.g. CFL bulbs and appliance with an A rated energy label.
- Don't waste energy; switch things like lights and TVs off (not just on standby) when they are not in use. Find out how we can use energy more efficiently.
- Remember to reduce, reuse and recycle as much as you can!
- Go on a carbon diet! Try to use less energy and less carbon dioxide in everyday life.

Resources for Teachers and Students

Websites

- This website gives you [facts on climate change and tips on what we can do to take action on climate change](#)
- [What can you do about climate change?](#)
- <http://www.350.org/>
- <https://www.epa.ie/>



Videos

- All the top climate scientists in the world have something to tell you <http://www.climatecouncil.org.au/really-important-science-announcement>
- This video highlights 10 signs which show how our climate is changing <https://www.climaterealityproject.org/>
- [This Simple Show Explains The Carbon Footprint](#)
- [How to Be Environmentally Friendly - Top 10 Tips](#)
- [National Geographic: Climate Change 101](#)

Resources for Teachers only

Classroom activity

As a class, calculate your carbon number. Try the carbon calculators listed below. These are free, online tools that are designed to help you reduce your carbon emissions.

Carbon Calculators:

- <http://www.askaboutireland.ie/enfo/irelands-environment/Change/calculator-tools/>
- <http://footprint.wwf.org.uk/>

Have your pupils form teams. Make a plan to reduce their carbon footprints. Encourage teams to brainstorm ideas on ways to take action and reduce the carbon footprints of your school, your community, your town or your city. Use these ideas for your One Good Idea Project!

Lesson Plans

- Use this lesson to introduce climate change from [Exploring our Energy](#) resources for 3rd and 4th. Chapter 3: Lesson 2, Introducing climate and climate change

