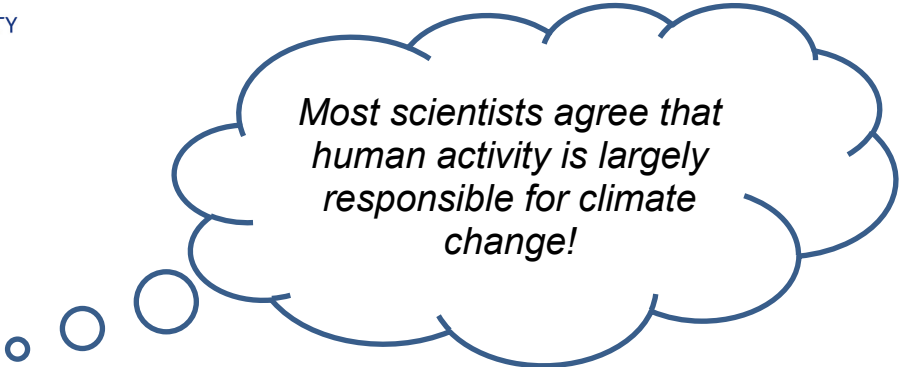**seai** SUSTAINABLE ENERGY AUTHORITY OF IRELAND

Climate Action

Most scientists agree that human activity is largely responsible for climate change!

Think about it…

Here are some questions to get your class thinking about the energy you use and climate change…

1. *When the TV is not in use do you turn it off or just leave it on standby? Do you switch lights off when not in use?*
2. *How is water heated in your home? Does your home use solar panels?*
3. *How do you use water when you are brushing your teeth? Do you leave the tap running? Do you take showers or baths at home? Which do you think uses less energy?*
4. *Have you measured your carbon footprint? Can you think of ways to use less energy and less carbon dioxide in everyday life to reduce your carbon number?*
5. *Why do you think people in developed countries use more energy than those in developing countries?*

Most of the energy used in Ireland every day is from burning **fossil fuels**, like coal, oil and peat. This energy is used every day in homes, businesses, schools and for travel. Burning fossil fuels produces **carbon dioxide**. Carbon dioxide is one of the **greenhouse gases** which are causing **climate change**. Greenhouse gases cause the earth to heat up by trapping the sun's heat in the earth's atmosphere. Climate change is causing the earth to become warmer.

Because of climate change:

- Global temperatures are rising
- 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 and hurricanes are more common

Fossil fuels, or **non-renewable energy** resources will not last forever. Ireland has a lot of **renewable energy**, for example from the sun, and wind, that will not run out. Renewable energy produces less carbon dioxide than fossil fuels. It's important to understand that the choices you make today will decide the future of the climate!

What action can you take?

A **carbon footprint** or **carbon number** is a way to measure the carbon dioxide you produce. You use energy every day at home, in school and when you travel. You can take **climate action** by using less energy to reduce your carbon number.

- Choose products like food, toys and clothes that are made locally. Choose environmentally friendly materials, with less packaging.
- Walk or cycle on short journeys.
- Switch off lights and TVs when not in use.
- Choose energy saving bulbs and appliances with an A rated energy label.
- Encourage people to use renewable energy in their homes. Solar panels can be used to heat water and wood fuel can be used instead of fossil fuels.
- Plant native trees - plants absorb carbon dioxide.
- Encourage your community to save water. This will reduce the amount of energy used to treat and pump water.
- Turn off the tap when you are brushing your teeth; this can save over 7,000 litres of water per year.
- Take a shower rather than a bath. A shower uses one fifth of the energy of a bath.
- Only run appliances like washing machines and dishwashers when they are full. A washing machine on full cycle can use up to 65 litres of water and dishwashers can use 20 litres.
- Monitor your school water usage and campaign to reduce it! For tips read the water conservation factsheet at http://www.energyineducation.ie/Energy_In_Education/Information_for_Schools/Resources_and_links/Water_Conservation_Factsheet.pdf
- Use a basin in your sink to collect water for use in the garden.
- Use a water butt to collect rainwater from gutters for use in the garden. Make sure to cover large containers for safety.
- Reduce, reuse and recycle!
- Go on a carbon diet by using less energy in your everyday life.

Find out more

Resources for Teachers and Students	
Websites	- Visit this website to find [facts on climate change and tips on what we can do, to take action on climate change](#) [What can you do about climate change?](#) - https://350.org/ - https://www.epa.ie/livegreen/
Videos	[Watch the Story of Energy video](#) [This Simple Show Explains Carbon Footprints](#) [How to Be Environmentally Friendly - Top 10 Tips](#) [National Geographic: Climate Change 101](#)

Resources for Teachers only	
Classroom Activities	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. - http://www.carbonfootprint.com/individuals.html - http://footprint.wwf.org.uk/ - http://www.nature.org/greenliving/carboncalculator/ Develop a plan to reduce carbon footprints – Ask pupils to form teams. Encourage teams to explore ideas for taking action to reduce the carbon footprints of your school, your community, your town or your city
Lesson plans	Introduce climate change by using this lesson from [A resource for teaching sustainable energy in Primary Schools](#), for Third and Fourth Class. Chapter 3: Lesson 2, Introducing climate and climate change