seai SUSTAINABLE ENERGY AUTHORITY OF IRELAND

Energy and climate action – think before you buy!

! Ireland has a higher carbon footprint per head of population than most EU countries in terms of electricity, buildings, transport, and waste management - *Climate Action Plan 2019*

Think about it…

Here are some questions to get your class thinking about climate change and the things we buy…

1. *Where did the food in your lunch box come from? Can you check the labels? How many kilometres did it travel?*

2. *What type of packaging did the food come in?*

3. *Where were the clothes you're wearing made and how did they get to the shops? Did they travel by boat, plane, rail or truck?*

4. *What material are the clothes made from? Is this natural or man-made?*

5. *What temperature do you wash your clothes at?*

6. *What happens to old clothes?*

Energy in-use

Most of the energy used every day is from burning fossil fuels, like coal, oil and peat. This energy is used in homes, businesses, schools and for travel. It takes energy to produce, package and transport the food you eat and the clothes you wear. 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

Your Impact

The choices you make today will decide the future of the climate. Can you encourage people in your community to think before they buy and take climate action?

Energy and food

Food miles is the distance food travels from the farm to your plate. Energy is used to grow, pack and transport food. Energy is even used to go to the shops by car! Lots of food is grown in Ireland, but food is also brought here from other countries around the world. It is better for the environment to buy food that is grown nearby.

Fruit and vegetables have a growing season and are harvested at a certain time of year. For example, Irish strawberries, grown outdoors, will be ripe in summer. During winter some fruit and vegetables are grown in heated greenhouses. This uses energy, so it's better to choose food that is 'in season'.

Most foods have packaging, some food have too much packaging. Plastic packaging is made from oil, a fossil fuel. Energy is used to make the packaging, wrap the food, and transport it from the factory, to the shop and to your home. Plastic packaging emits greenhouse gases when it breakdowns, adding to the climate crises.

The Environmental Protection Agency says that a third of all food waste in Ireland happens in our homes. It costs the average household about €700 a year! The foods thrown out most often include salad, bread, fruit and vegetables. While food waste from brown bins is composted, a lot of food still ends up in the dump. Of the waste that goes to landfill almost 40% is organic waste, most of which is food waste. It takes even more energy to transport and treat this waste. Rotting food in dumps can cause pollution.

Energy and clothes

The way clothes are made can use large amounts of energy, water and toxic chemicals.
For example:

- Growing and dyeing cotton uses energy and pesticides. It takes six pints of water to produce one cotton bud!
- Polyester is made from by-products of the oil industry which are non-renewable.
- Leather production produces a large amount of CO_2 and leads to deforestation.

Many of the clothes sold in Ireland come from poorer countries. This can mean poor working conditions for the people making the clothes. Clothes travel long distances by train, plane and boat to reach Irish shops. These 'fashion miles' produce greenhouse gases and contribute to climate change.

Even more energy is used to wash, dry and iron clothes. As clothes have become cheaper, more are being sold. Using poor quality materials means clothes don't last as long. This means more clothes are thrown away.

What can you do?

Food

- Make a shopping list and stick to it, so you only buy what you need.
- Think before you buy - choose locally grown food that is in season.
- Try to buy certified organic food.
- Find out about your local farmers markets.
- Talk to your local greengrocer, butcher and fishmonger. Find out where their produce comes from.
- Grow some of your own fruit and vegetables in school or at home.
- Choose products with least packaging.
- Try to buy what you need when you need it and store your food properly.
- Get composting!

Clothes

- Think before you buy, choose clothes made from natural fabrics that are produced closer to home.
- Wash at low temperatures, choose a chemical free detergent.
- Do not tumble dry, use the washing line instead.
- Hang your clothes to dry to minimise ironing.
- Try to avoid 'fast fashion' and buy clothes that will last a long time.
- Organise a Swap Shop in your school. Remember someone else's trash can be your treasure!
- Recycle and up-cycle your wardrobe. Organise a fashion show to inspire your friends!
- Recycle your old clothes by bringing them to your local charity shop or recycling centre.

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Find out more

Resources for Teachers and Students

FOOD	CLOTHES
Websites • A web site to help you understand food miles http://www.foodmiles.ie/ • Stop Food Waste; reasons to eat local food, the most commonly wasted foods and how to compost http://www.stopfoodwaste.ie/ • Try this online food miles calculator http://www.foodmiles.com/ • Check out tips from the Environmental Protection Agency on Living Green http://www.epa.ie/livegreen/ *Videos* • This video is a simple and visual way to understand food miles https://www.youtube.com/watch?v=6KuHU2X7gQ0 • Find out why eating local food is important https://www.youtube.com/watch?v=DhaG_Zi6izU • Grow It Yourself Ireland has video tutorials on how to grow your own fruit and veg https://giy.ie/get-growing/ • This video covers the journey of two journalists following the trip of a strawberry across America from field to shop https://www.youtube.com/watch?v=a3T-uSJpxOg **Resources for Teachers only** Use the Energy in Action resources and do the following activities with your class: • C2 Activity 1: Food Miles • C2.1 Worksheet B What's the Cost of your Shopping Basket	**Resources for Teachers and Student** *Websites* • http://www.re-dress.ie/ • http://loveyourclothes.org.uk/ • http://www.ethicalfashionforum.com/the-issues/energy-andwaste • http://www.treehugger.com/sustainable-fashion/ • https://www.theguardian.com/lifeandstyle/2018/feb/10/shop-less-mend-more-making-more-sustainable-fashion-choices • http://www.greenpeace.org/international/en/news/Blogs/makin gwaves/fast-fashion-drowning-world-fashionrevolution/blog/56222/ • https://www.fashionrevolution.org/ • https://www.grown.ie/ • http://www.miniwiz.com/ *Videos* • Eco Friendly Fashion Show • See how brands such as H&M are playing their part • Sustainable fashion tips from Vivienne Westwood **Resources for Teachers only** *Classroom Activities* • Hold a moving debate in the class room. Divide the room up so that students can stand in three areas marked Agree, Disagree and Don't Know. Call out statements about the clothing industry, energy and climate change. Have students move into the areas marked Agree, Disagree and Don't Know. • Create a classroom swap shop! Ask the pupils to bring in clothes that they no longer want and swap them with their class mates.

Taking Climate Action

- Research the impacts of climate change in Ireland and globally, using the links below.
- Calculate your Carbon Footprint and come up with ways to reduce it.
- Go on a carbon diet! Try to use less energy in your everyday life at home, at school, when you travel and remember to think before you buy.
- Research what the Irish Government are doing to take action on climate change. Investigate what other countries are doing. Write to your politicians asking them to take climate action.

Resources for Students and Teachers:

Websites
- http://www.epa.ie/
- http://www.dccae.gov.ie/en-ie/climate-action/Pages/default.aspx
- http://www.climateactionprogramme.org/
- http://unfccc.int/

Examples of climate action campaigns:
- https://1010uk.org/
- http://www.350.org
- https://www.stopclimatechaos.ie/
- https://www.foe.ie/
- http://www.greenpeace.org
- https://www.irishtimes.com/news/environment/climate-strikes-irish-students-rally-across-the-country-1.3903120
- https://www.seai.ie/blog/victory-luke-address-to-i/

Infographics
- Climate Action Plan 2019 - How do we reach our target?

Calculate your carbon footprint:
- http://www.epa.ie/climate/calculators/

Videos:

- Eco Eye: Climate Change & Ireland's Citizen's Assembly
- Eco Eye: Climate Friendly Living, A look at our carbon footprint and the measures we can take to reduce it
- Eco Eye: Climate Change and Me
- Fossil free Ireland, Dr Cara Augustenborg, TEDxUCD
- Leonardo DiCaprio on climate change http://leonardodicaprio.com/news/
- Before the Flood https://www.beforetheflood.com/
- National Geographic: Causes and Effects of Climate Change.
- Greta Thunberg full speech at UN Climate Change COP24 Conference https://www.youtube.com/watch?v=VFkQSGyeCWg
- An Inconvenient Truth / An Inconvenient Sequel: Al Gore's films on the global impact of climate change https://www.algore.com/library/an-inconvenient-truth-dvd

Resources for Teachers:

Climate Action Lesson Plans:

- Lesson plans on global warming and climate change
  - C3 Activity 1: Global Warming in a Bottle
  - C3 Activity 2: The Effect of Global Warming on the Polar Ice Caps and Melting Glaciers
- Lesson plans on sustainability
  - A3 Activity 1: Visualising: Why Sustainability? Is there enough land for everyone?