

LESSON 1

TOPIC: CLIMATE CHANGE

SUB TOPIC: THE CAUSES AND IMPACTS OF CLIMATE CHANGE

LESSON 1: WHAT IS CLIMATE CHANGE?

SUBJECT: GEOGRAPHY S.E.S.E

CLASS LEVEL: 3RD / 4TH CLASS (8-10 YEAR OLDS)

LEARNING OBJECTIVES:

This lesson will explore the term climate change, its causes and impacts.

Strand: Natural Environments

Strand unit: Weather and Climate

Strand: Environmental

LESSON OBJECTIVES:

- Develop an understanding of the term 'climate change'.
- Understand that climate change is caused by greenhouse gases.
- Understand that climate change is linked to extreme weather events.

LESSON PLAN



INTRODUCTION:

- Introduce the words climate change to the class. Have they heard of the words climate change before? What does climate change mean to them? Brainstorm or discuss what it means to them. Write the answers on the IWB.



CONCLUSION:

- Ask students to link images to definitions on the match-up resource sheets. One copy can be printed off, laminated and used for clarification throughout module. For words that students are unfamiliar with they can look them up in the dictionary.
- Conclude the lesson by stating that the earth's climate is changing, and this is because there are too many greenhouse gases being produced by burning fossil fuels. Human activities like burning fossil fuels are causing climate change and this is leading to extreme weather events. Climate change is happening all over the world.



DEVELOPMENT:

- Show the video 'climate change according to kids' on the next slide. Explain that Co2 is the way that scientists refer to the smoke that comes from cars, airplanes, power stations - and that it is also the air that human's breathe out and trees breathe in. Ensure that children grasp the link between Co2 (and other Green House Gases - GHGs) with climate change. One accelerates the other.
- Explain to the class that new information shows that climate change is getting worse and is impacting on people's lives everywhere - whether from extreme heat, air pollution, wildfires, intensified flooding or droughts. Ask the class do they remember if they ever got a day off school because of weather? Why do you think they had to close your school?
- Show the slides with the pictures of the weather events caused by climate change and ask students can they name them: Flooding, High Temperatures, Forest Fires, Drought. Ask students can they name any other weather events caused by climate change? For example, increased snowfall, severe storms, hurricanes. Do they remember similar weather events in Ireland? Have they heard about any other extreme weather events in another country?

Reflection Time!

- Create a K-W-L chart using flip chart paper and stick it at the top of the room. Ask students to write their answers to the statements below on post-its and stick to the chart. This can be used as a reference throughout the module.
- Three things I learned about climate change.
- Two questions I have about climate change.
- One opinion I have about climate change.

LINKAGE AND INTEGRATION FOR THIS LESSON:

ENGLISH

Strand: Receptiveness to language

Strand: Competence and confidence in using language

Strand: Developing cognitive abilities through language

DIFFERENTIATION:

- Use mixed ability groups during activities.
- Allow children to express themselves in ways they feel comfortable with, for example some children might like to write their answers while others might prefer to draw.
- Give children extra time to finish activities if needed.
- Make the Match – Up activity sheet more difficult by asking students to match the words to the definitions and then to the pictures.

ASSESSMENT:

- Students can critically assess the answers they gave at the beginning of the class when reflecting on their learning at the end of the lesson.
- The teacher can assess the learning of the class and individuals during reflection time.

RESOURCES:

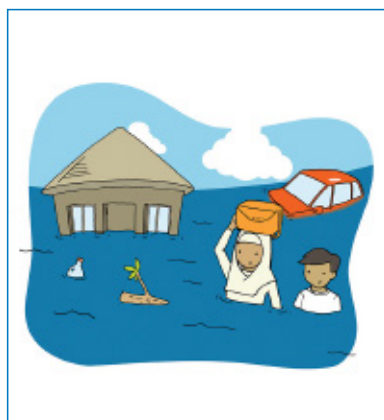
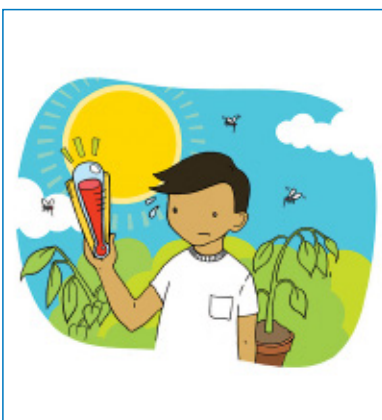
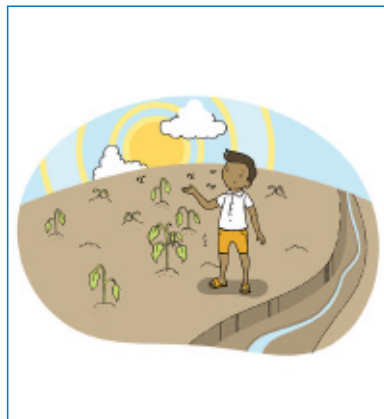
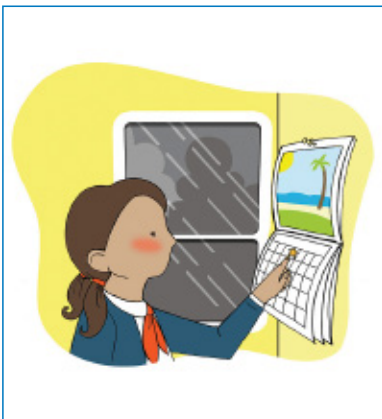
- IWB
- USB Presentation
- Post-its
- Flipchart paper
- Scissors
- Photocopies of the Match - Up resource sheet

RESOURCE: MATCH – UP

CLIMATE CHANGE 3RD/4TH CLASS – LESSON 1

MATCH THE PICTURES TO THE WORD AND DEFINITIONS.

CLIMATE CHANGE



RESOURCE: MATCH – UP

CLIMATE CHANGE 3RD/4TH CLASS – LESSON 1

MATCH THE PICTURES TO THE WORD AND DEFINITIONS.

CLIMATE CHANGE

CLIMATE CHANGE	The climate can be described as the average weather over a period. Climate change means a significant change in the measures of climate, such as temperature, rainfall, or wind, lasting for an extended period – decades or longer. Source: EPA
GREENHOUSE GASES	Greenhouse gases occur naturally. They are essential to the survival of humans and millions of other living things; they keep some of the sun’s warmth from reflecting back into space. But after more than a century and a half of industrialization, deforestation, and large-scale agriculture, quantities of greenhouse gases in the atmosphere have risen to record levels not seen in three million years. The largest Greenhouse gas is Carbon Dioxide, and this comes from humans burning fossil fuels. Source: UN
FOSSIL FUELS	Human activities are changing Earth’s natural greenhouse effect. Burning fossil fuels like coal and oil puts more carbon dioxide into our atmosphere.
GLOBAL WARMING	We know greenhouse gases are building up in the atmosphere. More heat in the atmosphere is causing the planet to warm up. This is causing the average temperature on Earth to rise rapidly leading to melting glaciers and warmer oceans. Source: UN
CHANGING SEASONS	Today, climate change is leading to shifts in what seasons look like. Spring might come earlier in some parts of the world. Rainy seasons are delayed in other parts.
DROUGHT	Higher temperatures and increasing evaporation combined with less rain can cause drought which is a lack of water. Droughts can be devastating to the environment. But droughts also have serious consequences for people’s livelihoods. They really affect farmers, but also the water supply and people’s health.
EXTREME WINDS AND STORMS	Higher temperatures lead to warmer and wetter environments. In the future, climate change will likely lead to stronger tropical storms, cyclones and hurricanes. This can cause people’s homes, schools and offices to be destroyed.

RESOURCE: MATCH – UP

CLIMATE CHANGE 3RD/4TH CLASS – LESSON 1

MATCH THE PICTURES TO THE WORD AND DEFINITIONS.

CLIMATE CHANGE

FLOODING

Higher temperatures are leading to more intense rainstorms. This is because of increased evaporation of water from the sea, lakes and rivers and because warmer air can hold more water vapour. More intense rainfall increases the likelihood of flooding. Peoples crops and homes can be destroyed because of flooding.

HEATWAVES

The hottest year on record was 2016. A long period of unusually hot weather can cause illness that is especially dangerous to the elderly, small children and sick people. Exposure to the sun could result in fainting, heat exhaustion and heat stroke.

MELTING GLACIERS AND POLAR ICE

Water can soak up a lot of heat. When the oceans get warmer, sea ice begins to melt in the Arctic and around Greenland. As more sea ice and glaciers melt, the global sea level rises.

CLIMATE CHANGE: CAUSES AND IMPACTS OF CLIMATE CHANGE

LESSON 1



What is Climate Change?

**WHAT DO YOU
UNDERSTAND
BY THE WORDS
CLIMATE
CHANGE?**





CLIMATE CHANGE?











**REFLECTION
TIME...**

CLIMATE CHANGE