

# **Climate Change**

## The issues

Working through this topic you will:

- find out about possible **impacts** of climate change in your local area, region or country;
- find out about **actions** being taken where they live to deal with the effects of climate change;
- discuss the ways that people as individuals, or as part of society are responding to the issues.

### The activities

You can use a variety of sources, including the internet, to gather the information you need. In particular you can explore how climate change might affect your own country. You might also find out something about the way the media reports the issues.

You can assess the attitudes of individuals and organisations to climate change in your own country. You can also discover what is being done about the problems.

In the end you will produce a report with text and images to submit to 'Making the News'.

### The Exchange

In this topic you compare your findings with the information in reports from other students



# SCIENCE WORLD Climate Change

### The issues

Climate change is an issue which matters to us all wherever we live. You are going to explore the possible impacts of climate change in different parts of the world. You are also going to discuss what we need to do to limit climate change and its effects.

The science and the news about climate change do not stand still. For this reason we suggest that you use the internet as one of your sources of your information.

This topic will help you to think about the issues, discuss them with other students in your class and then publish reports on 'Making the News'. By looking at other reports on 'Making the News' you will be able to discover the views of students in other parts of the world.

### Background to the issues

We assume that you already know something about the climate change. If not there are web sites to help you.

Have a look at the United States Environmental Protection Agency website. The climate, impacts and actions sections are particularly useful. Also see the very helpful web sites of the Atmospheric Research and Information Centre site at Manchester Metropolitan University and the UK Met Office.

Links:

Potsdam Institue for Climate Impact Research

The United States Environmental Protection Agency

#### UK Met Office

#### What you will do

As you work through the parts of this topic you will gather the information you need to produce a short report that will be read and discussed by students in other schools. You will publish your report (with text and pictures) on a special section of a web site called 'Making the News'.

Your report can be about:

- one of the signs and effects of climate change in your country (an impact see part 1).
- an example of something that people are doing in your country to respond to the changes (an action see part 2).

You could interview an older person. You could ask them for examples of changes in their lives that they think are due to climate change.

You could also use many other sources of information such as watching TV, listening to the radio, looking at newspapers. Websites are especially helpful. You do not have to limit yourself to the websites we recommend. In a search engine try search terms such as 'climate change + name of place/region/country/ + type of impact/action'.





# Climate Part 1 The impacts of climate change where you live

You are going to find out about at least one of the signs or effects of climate change where you live.

# What to do

Pick one of the impacts that matters to you or people near where you live. You might investigate the signs or impact of climate change linked to one of the following:

- the weather (temperature, winds and rainfall),
- the seasons,
- habitats,
- water supplies,
- health and disease
- wildlife (plants or animals)
- agriculture,
- sea level,
- anything else.



Research your chosen topic near your home, in your region or in your country. You can use a variety of sources. You can interview people. Talk to an older person and ask about changes to the climate that they have noticed in their lives. Watch TV. Listen to the radio. Look at newspapers. Search the internet. Use search terms such as 'climate change and + name of your place, region or country + issue'.

When you have done the research, write a short report with picture(s) for an on-line site called <u>'Making the News'</u>.

# Sources of information

You can get ideas for things to look for by following these links to other web sites:

- <u>Climate change a guide to impacts and responses worldwide</u> with briefing notes about many countries,
- <u>WWF Climate witness</u> stories from individuals about their observations of climate change and its impact on their lives,
- Account of impacts in UK and in other parts of the world from the <u>UK Met Office</u>,
- A photographic record of the impacts of climate change from a <u>World View of Global</u> <u>Warming</u>,
- Health and disease (World Health Organisation),
- Agriculture (Food and Agriculture Organisation),
- Impacts according to the Union of Concerned Scientists,
- A site with an interactive map showing <u>early warning signs</u> all over the world.

Now move on to Part 2.



# Part 2 What actions are being taken to deal with climate change where you live?

You are going to find out about how people are responding to the problems caused by climate change where you live.

### What to do

Pick one of the things that people, organisations or governments are doing about climate change in the place, region or country where you live.

Your report might be about something being done to deal with the effects of climate change:

- engineering works to defend against extreme events such as storms or floods,
- changing methods of agriculture,
- choosing different plants to grow for food or flowers
- rules about water use and changes to water supplies
- new practices to avoid being affected by new diseases.



Photo Credit:US National Oceanic and Atmospheric Administration

Instead your report might be about changes in the way people live and work to try to cut down on factors that can make climate change worse. For example attempts to cut down on emissions of the greenhouse gases that cause global warming. These are the sorts of actions that try to make our lifestyles, ways of working and industry more sustainable:

- bringing in different types of transport to cut down the use of fuel
- finding ways of heating homes and workplaces more efficiently
- using renewable sources for fuels to generate electricity
- recovering materials and energy from waste

Research your chosen topic near your home, in your region or in your country. You can use a variety of sources. You can interview people. Watch TV. Listen to the radio. Look at newspapers. Search the internet. Use search terms such as 'climate change and + name of your place/ region/country + issue'.

When you have done the research, write a short report with picture(s) for an on-line site, for your partners across the world <a href="https://www.facebook.com/groups/108632725863761/">https://www.facebook.com/groups/108632725863761/</a>

### Sources of information

You can get ideas about possible actions by following these links to other web sites:

- changing methods of agriculture (<u>Food and Agriculture Organisation</u>)
- choosing different plants to grow for food or flowers (<u>BBC Gardening</u>)
- experiments with <u>carbon capture and storage</u>,
- a campaign in Europe to respond to the challenge of climate change,
- the work of pressure groups to respond to climate change such as <u>Friends of the Earth</u>, <u>Greenpeace</u> and <u>WWF</u>.

Now move on to part 3.



# Part 3 Reporting and publishing your findings

Now that you have completed parts 1 and 2 you can make a report and publish your findings in 'Making the News'. Some students in your group or class can make a report about an impact of climate change. Others can make a report about an action in response to climate change.

Start by writing your report. This does not need to be long. Include information and ideas which you think will be interesting to students in other countries.

Add at least one illustration. This could be a photograph, diagram or drawing.

It is interesting to include, at the end of your report, a little information about yourselves, your school and where you live. Include a picture if possible.



Photo Credit: US National Oceanic and Atmospheric Administration

Finally go on to Part 4 to compare your report with reports published from people in other places.

Now move on to Part 4.



# Part 4 Discussing the issues

Read the reports from other countries, from your partners across the world.

Discuss what you learn about the impacts and actions related to climate change in other parts of the world.

1 Are the findings reported from other places:

- similar to yours? If so, in which countries?
- different from yours? If so, which countries?

2 What are the impacts that really seem to be serious? Which parts of the world seem to be seriously affected?

3 What are the actions that seem to be possible? Are these actions likely to make a difference?

4 Make a table for each of the countries that have posted a report in <u>'Making the News'</u> indicating whether they are:

- realistic
- optimistic
- pessimistic
- concerned sufficiently to take action
- concerned about the effects in other countries.

Do any patterns emerge from this information?

5 You have found out information about climate change and discovered the opinions of students in other countries. Do you feel encouraged to do something about climate change? If so, what actions will you take? If not, why not?



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Photo Credit: US National Oceanic and Atmospheric Administration