

Climate change impacts

Introduction

This is an activity in which students, working singly or in groups, first find out about one of the main impacts of climate change and then give a short presentation on their findings. This activity sets the scene for subsequent sessions about technical and political responses to the challenge of climate change.

The activity

Remind students about the characteristics of a good presentation as described for skill area 6 of Learning Skills for Science (<http://www.nuffieldfoundation.org/learning-skills-science-0>)

How Science Works

Fb The popular media play a part in providing information, setting the agenda and influencing opinion on issues involving science and technology.

Gf To make an informed decision about the management of a given risk, we need to take account both of the probability of the event occurring, and the seriousness of the consequences if it did. This is particularly difficult in the case of events of very low probability, but with very serious consequences if they occur.

He In practice much of the evidence available to decision makers is often uncertain. It is not possible to make accurate predictions about the future. The system may be too complex; some issues may not yet be well understood.

Hf Decision makers are influenced by the mass media, by special interest groups and by public opinion as well as by expert evidence. Decisions about science and technology may be influenced by decision makers' prior beliefs or vested interests, which can affect their interpretation and evaluation of the evidence.

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It seems that we cannot escape climate change and so it is important to assess the likely impacts and see what can be done to manage the risks. In this activity you are going to choose just one type of impact, study it and report back to the rest of your class on your findings.

The activity

Choose one of the topics given below. In addition to your textbook (pages 125-129), the lists of web sites under each heading give you starting points. You may well find further information about your topic from newspaper web sites and from New Scientist. Use a search engine to find information about your chosen topic in parts of the world that are of interest to you. Compare the reporting of your topic in more popular media with that from national and international organisations.

Report back to your class on your chosen topic with the help of a short PowerPoint presentation covering questions such as:

- Why does climate change cause these impacts?
- How soon are we likely to feel the effects?
- How serious are the impacts?
- Where in the world are the impacts more severe?
- How accurately do the popular media and environmental campaigners report on this issue?

- **Water resources**

- <http://www.epa.gov/climatechange/effects/water/index.html>
- <http://www.cana.net.au/water/>
- <http://newsvote.bbc.co.uk/1/hi/world/africa/6092564.stm>
- http://knowledge.allianz.com/en/globalissues/climate_change/climate_impacts/climate_co sts_water.html
- <http://www.unesco.org/water/wwap/wwdr/wwdr3/tableofcontents.shtml>

- **Sea levels**

- http://www.bbc.co.uk/climate/impact/sea_level.shtml
- <http://www.epa.gov/climatechange/effects/coastal/index.html>
- <http://www.worldviewofglobalwarming.org/pages/rising-seas.html>

- **Extreme weather events**

- <http://www.bbc.co.uk/climate/impact/flooding.shtml>
- <http://www.epa.gov/climatechange/effects/extreme.html>
- <http://www.worldviewofglobalwarming.org/pages/weather.html>
- http://knowledge.allianz.com/en/globalissues/climate_change/climate_impacts/climate_co sts_weather.html

- **Human health**

- <http://www.who.int/globalchange/en/>
- <http://www.epa.gov/climatechange/effects/health.html>
- <http://www.wellcome.ac.uk/Education-resources/Teaching-and-education/big-picture/all-issues/health-and-climate-change/index.htm>
- http://knowledge.allianz.com/en/globalissues/climate_change/climate_impacts/climate_costs_health.html

- **Ecosystems**

- <http://www.unep-wcmc.org/climate/default.aspx>
- <http://www.epa.gov/climatechange/effects/eco.html>
- <http://www.worldviewofglobalwarming.org/pages/topics-oceans.html>

- **Agriculture**

- <http://www.bbc.co.uk/climate/impact/agriculture.shtml>
- <http://www.epa.gov/climatechange/effects/agriculture.html>
- <http://www.fao.org/climatechange/home/en/>
- http://knowledge.allianz.com/en/globalissues/climate_change/climate_impacts/climate_costs_agriculture.html
- <http://www.scidev.net/en/agriculture-and-environment/>