# THINKING THROUGH CLIMATE CHANGE

# THE BLANNE GARNE

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# Teachers' notes

This section looks at some of the basic causes of climate change. In particular, how burning fossil fuels creates greenhouse gases such as Carbon Dioxide, which contribute to global warming.

It begins to explore questions and perspectives about who is responsible for this, and would naturally lead on to the *Sort it out!* section

### > Sort It Out

We have built in opportunities to record and assess learners' understanding. As a result, some of the questioning in this section is more closed than elsewhere in the resource.

We have therefore built in counter-questions to some of the information we have given. You may want to go further, and encourage students to look critically at the way information on climate change is presented both here and in other sources. Sources for information are given at the end of these notes.

# Fact or opinion?

There is a bewildering array of contradictory information available on climate change. This activity explores some of this, by inviting learners to drag and drop statements on climate change into two categories. Its aim is for learners to deduce whether a statement is fact or opinion. It is suited to individual/pair/group work dependent on ability and age.

Some statements contain dates and a speaker to allow further consideration of reliability and bias. Sources are given below. More advanced learners may want to look more generally at the question of what we mean by a fact or an opinion, and at evidence-based assertions.

### > Fact or Fiction



# Differing opinions

This activity explores a range of perspectives on climate change. Learners drag-and-drop opinion statements to match people who are likely to have said them. It aims to help learners understand that people hold different views about issues depending on their position in society. It is suited to individual/pair/group work dependent on ability and age.

Although all the statements are genuine, this activity relies on a degree of caricature, and you may want learners to explore the idea that not all people in these roles would agree with the statement we have allocated to them. Students could use links on this site or search engines to look at other facts and opinions about climate change.

Learners then go on to complete a writing frame, in role, for one of the characters. Finally, we offer a frame for learners' own views. We suggest that this is completed following a whole class discussion, and is then saved in a personal folder.

> Whose Opinion



# **Extension opportunities**

Learners compose a quiz, which checks their peers' understanding of the causes of climate change. We offer a model, which learners might wish to complete individually or as a whole class.

### > Quiz

[Answers: 1T, 2T, 3T, 4F, 5F, 6T].

Learners look at some of the key vocabulary of climate change, using an online dictionary or encyclopaedia:

- > Dictionary.com
- > Wikipedia
- > Wiktionary

Key terms could include: Carbon dioxide, Climate, CO2, Deforestation, Economy, Emissions, Environment, Fossil fuels, Fuel efficiency, Global warming, Greenhouse gas, Hybrid car, Hydroelectricity, Irrigation, Non-renewable energy, Nuclear power, Organic crops, Oxygenate, Renewable energy.

Learners design an advertising poster for a hybrid car. The poster should show how hybrid cars harm the climate less than petrol/diesel cars.

Learners research political party views on climate change. They could create a leaflet for a local election candidate for an independent party concerned about climate change. Websites include:

- > Conservatives
- > Green Party
- > Labour
- > Liberal Democrats
- > Local MPs' views



# Assessment green

Most learners at KS2 and KS3 will be able to do these activities without significant support. Some learners may require discussion with peers before completing these activities. Activities have been designed to support self-evaluation by learners as well as teacher assessment opportunities.

# Curriculum

This section touches on questions of bias, evidence and opinion, which has strong links to many parts of the curriculum at both KS2 and KS3. This includes:

### Literacy

Balance and evaluate different points of view. Argue a point of view.

### Science

Using secondary sources/considering evidence. [See KS3 Unit 9M *Investigating scientific questions*; Unit 5/6 H *Enquiry in environmental contexts*; Unit 9G *Is global warming happening?*]

### Geography

Investigating and evaluating evidence. [See KS2 Unit 16 What's in the news?]

### **ICT**

Interpreting a range of information, checking for relevance/plausibility, considering its characteristics and purposes. [See KS2 Unit 5C. *Evaluating information, checking accuracy and questioning plausibility*; KS3 Unit 10 *Information, reliability, validity and bias*].

### Citizenship

Analysing information and its sources, justifying opinion, expressing views [own and others']. [See KS3 Unit 10 *Debating a global issue*; KS2 Units 1 *Taking part* and 2 *Choices*].



# Sources

### **Fact bin statements**

The UK climate has changed, with temperatures in Central England rising by almost 1° over the last century.

Source: www.direct.gov.uk

The average sea level is rising by about 1mm per year.

Source: www.direct.gov.uk

Cutting down trees in the Amazon rainforest will add to global warming,

through a 25% increase in Carbon dioxide.

Source: www.commondreams.org

Our climate is warming at a faster rate than ever before: the 10 hottest years ever recorded have all occurred since 1991.

Source: The Big Ask [Friends of the Earth, 2006] www.foe.co.uk

One person flying in an aeroplane for one hour is responsible for the same greenhouse gas emissions as a typical person from Bangladesh in one year. Source: Beatrice Schell, European Federation for Transport and the Environment, November 2001 – in www.newscientist.com



### **Opinion bin statements**

Due to increases in greenhouse gas emissions there will be climate change over the next 30-40 years. The UK climate will become warmer.

Source: www.direct.gov.uk

The emission of greenhouse gases is causing global warming at a rate that

has become alarming [Tony Blair, 14/09/06.] Source: www.climatesoutheast.org.uk

There are those who believe that global warming will result in little more than warmer winters and increased plant growth [John Weier, NASA Earth Observatory 08/04/02].

Source: www.earthobservatory.nasa.gov

An increase of two or three degrees wouldn't be so bad for a Northern country. We could spend less on fur coats and the grain harvest would go up [Vladimir Putin, Russian President, 2003].

Source: www.newscientist.com

Every time someone in the West turns on a kettle, he or she is helping to flood Bangladesh.

Source: George Monbiot, Guardian Weekly, 10/02/00

### **Role-play statements**

Mostly from www.newscientist.com. Oil company statement: Fred Palmer, Western Fuels Association www.tidepool.org



## Next

This is one of five sections which explore particular aspects of climate change. We imagine that learners will look at two or more of these before going on to the final section, where they report back.

### > Final Task

Learners can access the final task from the learners' logs, while teachers can also access it from the site map.

To return to introductory teachers' notes

- > Introductory Notes
- > Teachers' site map