

Climate Chaos

Day 3 Morning session: Our contribution to climate change

Activity 1: The fossil fuel energy in our day

Time required: 45 minutes

You will need

- Writing paper, pencils and rulers
- Interactive whiteboard, computer and internet connection (optional)

Aim

- To increase awareness that many of our daily activities release carbon dioxide and contribute to climate change.

What to do

Recap on fossil fuels and how they contribute to climate change:

- Carbon is a chemical that is essential to all life, including plants and animals.
- Fossil fuels such as coal, oil and gas are made from plants and animals that died millions of years ago. They contain carbon.
- When we burn fossil fuels, the carbon reacts with oxygen in the air to make carbon dioxide. (If the class has previously studied respiration and photosynthesis, remind them that we breathe out carbon dioxide and that plants use it for photosynthesis.)
- Carbon dioxide is a greenhouse gas, which helps to keep the Earth warm enough for life to exist. However, since the Industrial Revolution 200 years ago, people have been burning more and more fossil fuels and this is affecting the Earth's climate.

If you have easy internet access, show the class the [graph on the site Climate Choices – Children's Voices](http://www.climatechoices.org.uk/pages/cchange3.htm) (you will need to scroll down the page to find it), which clearly shows how levels of carbon dioxide and temperatures have risen together in the last 150 years.

<http://www.climatechoices.org.uk/pages/cchange3.htm>

You could also show the short PowerPoint presentation '[How cars make carbon dioxide](http://www.climatechoices.org.uk/pages/cchange4.htm)'.

Ask the pupils to divide a sheet of paper in half. On the left-hand side, they should write a list of everything they do on a normal day (getting up, having a shower or wash, eating breakfast, etc.). They might need two pieces of paper to list everything! On the right-hand side they should write any of these activities that use fossil fuel energy. Remind them that as well as oil used for petrol and oil, gas or electricity used for heating, most of our electricity is produced by burning coal or gas (see figures in Background information for teachers). Pupils might like to work in pairs to do the second half of the activity.

After they have completed their lists, ask for volunteers to share them. Did the rest of the class notice any activities that use fossil fuels, which they had missed?

An alternative way of doing this would be to ask the volunteers to read out the list of things they do and ask the rest of the class to put their hands up when an activity uses fossil fuel.

Ask someone with their hand up to explain how the activity uses fossil fuel (e.g. a shower uses hot water which is heated by gas or electricity).