

Introducing Climate Change: Past, Present, and Future

Activity 3: The greenhouse effect in a jar

Ages: 8–11

Aim

To help pupils understand how the greenhouse effect works.

You will need

- A sunny day
- Two small thermometers
- A large clear glass jar

What to do

Ask groups of pupils to lay two thermometers side by side on the same kind of surface outdoors. They should then cover one of the thermometers with the large jar. Explain that this is their greenhouse.

The groups should take and record the readings from each thermometer straight away; again after 30 minutes and again after an hour.

Discuss what difference in temperature, if any, there is between the two thermometers. Recap on what the pupils learnt in the morning session: explain that gases such as carbon dioxide have a similar effect to the world as the glass jar. This is why it is called the 'greenhouse effect'. The greenhouse effect is important for us, as it has made the Earth warm enough to support life. However, human activity is now making the layer of 'greenhouse gases' thicker, so the Earth is getting hotter.

Source: (This activity is based on one in 'Climate Chaos' (WWF 2005), which can be downloaded from <http://www.wwflearning.org.uk/wwflearning-home/resource-centre>).