

## Climate change

### Worksheet A - Climate change – the evidence

Match the questions to the answers about climate change.

1. What is climate change?
2. What is the 'greenhouse effect?'
3. What is the evidence of global warming?
4. How will the weather change?
5. What is the international community doing?

- A. Sea levels have risen by 10 – 20 cm. This is due to the expansion of warming oceans. Temperature records show that the average temperature has increased by about 0.6°C in the 20th century.
- B. The Kyoto Protocol (1997) commits industrialised countries to reduce their greenhouse gas emissions. It suffered a huge set back in 2001 when the USA, responsible for a quarter of global emissions, pulled out.
- C. The planet's climate is constantly changing but now scientists believe that the extreme changes taking place today are a result of human activity. The changes we see today may affect the stability of the climate on which much life on the planet depends.
- D. The term refers to the role played by the layer of gases, including carbon dioxide, methane and nitrous oxide, which trap the heat from the sun in the earth's atmosphere. We need the layer to keep in some of the heat but now the concentration of gases, especially CO<sub>2</sub> is increasing and retaining more heat.
- E. It is difficult to predict, but we can expect more extreme weather conditions like floods, storms and heat waves. Scientists believe there will be more rain but also a higher risk of drought in inland areas

**Worksheet B – How green are you?**

Do the following quiz to find out how 'green' you are. Check the answers with your teacher afterwards. One point for every correct answer.

- 1) You are busy in your house tidying up going from room to room spending 5 to 10 minutes in each. Which is the best way to save energy?
  - a) Switch the lights on and off every time you move from room to room
  - b) Keep the lights on as you move about the house
- 2) You are hungry and want to bake a potato. Which method is 'greener'?
  - a) Put it in an electric oven for an hour
  - b) Quickly zap it in the microwave
- 3) You are thirsty so you go to a café to buy a drink. What do you choose?
  - a) A bottle of mineral water
  - b) A cup of coffee in a polystyrene cup
- 4) You need a new shirt / blouse and there are two that you like in the shop. You look at the label and see that one is made of 100% pure natural cotton and the other is 50% polyester. You want to be as environmentally friendly as you can.  
Which one do you choose?
  - a) The 100% cotton shirt
  - b) The 50% polyester shirt
- 5) Do you leave the tap on when you brush your teeth?
  - a) Yes
  - b) No
- 6) As well as putting their health and the health of those around them in danger, smokers also put the environment in danger.
  - a) True
  - b) False
- 7) Which is the 'greenest' way to wash your clothes?
  - a) Machine wash in cold water
  - b) Hand wash in hot water
- 8) Which form of transport is better for the environment?
  - a) Driving by car
  - b) Flying by plane
- 9) When you go to the supermarket how do you take your shopping home?
  - a) In plastic carrier bags from the supermarket
  - b) In your own bag or basket
- 10) If you have the choice, how do you prefer to buy a cold drink in a café?
  - a) In a can
  - b) In a glass bottle

How many did you get right?

1-3	4-6	7-10
You have a lot of changes to make if you want to be greener.	Not bad! You know about how you can help the planet. You are quite green.	Well done! You have a very green head on your shoulders!

**Worksheet C – Recycling Race**

Work in teams to think of things to put in the recycling columns. The words must all begin with the letter your teacher gives you.

	Paper / Wood	Plastic	Metal	Glass	Organic
<b>B</b>	<b>Book</b>	<b>Bin</b>	<b>Bicycle</b>	<b>Bulb</b>	<b>Banana</b>

**Global warming message board**

- The idea for this activity was from a real message board on a website about the weather. Most of the views are adaptations of what real people think. This activity offers the students a look at the other side of the coin; some of the potential advantages of global warming! It should be used to provoke students' own ideas and thoughts on the subject and may trigger some strong reactions.

Give each student a copy of **Worksheet D**.

**Worksheet D – Global warming message board**

A message board on a weather website asked its readers to write in with their views on global warming and climate change. Here is a selection of their messages.

Gonzalo – I'm all in favour of global warming. I grow tropical plants so for me the warmer the weather is the better!

Tanya – In 20 years time the traditional British weather will be a thing of the past. We'll have a climate like the south of France. People will be healthier as they'll spend more time outdoors. Just think, dining al fresco in the summer months. It'll be great!

Luis – no one can tell me that global warming isn't happening. We've just had the hottest year on record! My sister lives in the north of Spain and she said that it is beach weather there and it's November. I mean it's not normal is it?

Kevin – When I was a boy we used to have heavy snow most years. Since the early 90s all we've had is a light dusting of snow. It must be due to global warming.

Ruth – You only have to switch on the news to see the crazy things the weather is doing. There are so many floods, hurricanes and droughts. It's the extreme weather conditions caused by global warming.

Oliver – There's no such thing as global warming. It's all media hype to brainwash people. If they told us the moon was made of cheese often enough people would believe it!

Mark – The world will never be the same again, but that's how it has always been. It changes constantly and nature and man can adapt to these changes. If we couldn't, human life on the planet would have finished years ago.

- Who do you agree with most?
- Who do you disagree with?
- What would you write to the message board? Put your message here.

**Worksheet E – Climate Change – Discussion Statements**

Climate change is the most serious threat to our planet at the moment.
All countries should be forced to apply serious regulations to reduce carbon emissions.
Normal people can't do much to stop global warming.
Everybody should do whatever they can to save energy.
I am worried about climate change.
Climate change isn't as serious as people say. People like to worry about something!
There are simply too many people living on planet earth!
We are going to lose many animal species and areas of low land in the very near future because of global warming.