



# Climate Crisis

1 *Climate change* is the long-term change in the temperature, rainfall and wind patterns of a region. During the history of the Earth, the climate has changed regularly in slow cycles, but now Earth's atmospheric temperature is increasing more quickly. Some people may argue that this is happening naturally, but there are others who claim that this climate change is due largely to human activity. Regardless of who is correct, it is

important to be aware of the possible impact that our own actions can have on the environment.

2 Burning *fossil fuels* (coal, gas and oil) to make electricity releases carbon dioxide into the atmosphere—the thin layer of gases that surrounds the Earth. Sunlight enters the atmosphere and warms the Earth to the temperatures that we are used to. However, as carbon dioxide increases,

the atmosphere becomes thicker, acting like a 'blanket' or 'greenhouse', which traps warm air and causes Earth's temperature to rise.

3 Think of the activities in your typical day. Most require energy, and if the power source is a fossil fuel, then you are contributing to carbon dioxide production. Activities like travelling by plane, car or bus; heating and cooling your house or school; running TVs and lights; washing dishes, clothes and even yourself, all can contribute to climate change. Don't forget the electricity used to manufacture the things we use — our clothes, food, electrical and personal items, plus all the packaging they come in.

4 After thousands of years, Earth's population finally reached one billion people in 1802. In the 200 years since it has jumped to 6.6 billion people. So there are many more of us, and generally we travel more and consume more manufactured items. More petrol and fossil fuels are being used, and the result? More greenhouse gases and more heat trapped in the Earth's atmosphere.

5 There are two obvious steps in changing this dangerous trend. Firstly, we should look into other energy sources that are *carbon neutral*. This means they do not add more carbon dioxide into the atmosphere. Energy sources such as hydroelectricity and wind-generated electricity are both carbon neutral. Secondly, we should try to be more energy efficient in our day-to-day activities. This means using less energy.

6 Few scientists deny that the Earth's temperature will rise. The ten warmest years on record have all been since 1990. Higher temperatures will mean more than just bringing out the summer clothes and slapping on some sunscreen. Already many snowfields are melting, as photos of Mount Kilimanjaro in Africa show. In the Himalayan Mountains, 40 per cent of people depend on

glaciers for drinking water — glaciers that may not be there much longer.

7 The Antarctic and Arctic icecaps are also melting, and if these huge expanses of ice continue to melt and flow into the oceans, sea levels worldwide will rise; a disaster for coastal cities and small low-lying islands like many in the Pacific.

Also, when the sun's rays hit ice, nearly all the heat is reflected, but when they hit water, more than 90 per cent is absorbed. So as the icecaps melt, the water temperature will increase. This will disrupt the ocean currents that support fish and animal life, and influence climate.

8 Increases in the ocean's temperature will also result in increasing numbers of severe cyclones and hurricanes, because these storms gather more force over warmer water. The amount and distribution of rain will be altered. Extreme floods and droughts will become more common, and suitable rainfall may no longer occur in traditional farming areas. When farmers are affected, so are consumers — and that's us!

9 Losing habitats like reefs, snowfields and tropical forests will result in loss of food and shelter for native animals, forcing their possible extinction. Changes in seasonal conditions also upset the balance between predators and prey. For example, bird hatchings must occur when caterpillars are plentiful, so the hatchlings have a good food supply. As seasons shift, not all animals can adapt fast enough to survive.

There is the risk that diseases such as malaria may become global epidemics, as rainfall patterns shift and conditions suitable for insects like mosquitoes become more prevalent in populated areas.

10 This is a huge global problem, but together, individuals **can** make changes. We can reduce



our energy use by:

- dressing for the weather, rather than using airconditioning and heating
- using less hot water by having shorter showers
- using cold water for washing clothes and dishes, and only washing full loads
- unplugging electrical appliances when not being used
- installing compact fluorescent, light bulbs, and turning off unneeded lights
- car-pooling, using public transport, walking or cycling
- saving up several errands for the one trip
- not buying things you don't really need
- recycling plastics, papers and metals.

Sure, we still need energy, but encourage your family to be responsible.

11 Some tips:

- When buying new appliances choose energy efficient models with high 'star ratings'.
- Install an efficient showerhead.
- Make sure your car is tuned and running efficiently or think about using a hybrid electric car.
- Switch to wind, solar or hydropower.
- Reduce waste and packaging.
- Plant trees — they absorb carbon dioxide.

12 Regardless of how severe climate change may actually end up being, it is important to at least act while there is still time — before we have lost too much ground. We all need to work together, so talk to your friends and relatives about how they can help, and write to newspapers and politicians. We have the knowledge and technology to undo some of the damage today.

## Questions

1 *Fossil fuels*

- a are used in greenhouses.
- b make up the thin layer of gases around the Earth.
- c are burned to make electricity.

2 What does *carbon neutral* mean?

- a The energy source does not add more carbon dioxide into the atmosphere.
- b A carbon neutral person uses less energy.
- c This was the period of time before Earth's population reached one billion in 1802.

3 What is not a way to reduce energy usage?

- a using public transport
- b wearing a scarf in winter
- c having long showers

4 An increase in the ocean's temperature will result in

- a more even distribution of rain.
- b more floods and droughts.
- c an increase in the fish population.

5 What is happening to glaciers?

- a They are growing.
- b They are absorbing 90 per cent of the sun's heat.
- c They are melting.

6 If you believe there is a climate change crisis, the worst effects of it

- a have already happened.
- b are happening now.
- c will happen in the future.

## Vocabulary

Find words in the text that match the meanings below. The word is in the section shown in brackets.

- 7 To use up, eat or drink (4)
- 8 A new development or style (5)
- 9 To interfere or disturb (7)
- 10 Exceedingly great or intense (9)
- 11 To function with minimal waste or effort (11)

## Grammar

Words that sound the same but have different meanings are called **Homophones**. E.g. **to, too** and **two**. Write the correct **Homophone** in these sentences from the text.

- 12 So **there/their** are many more of us.
- 13 There are **too/two** obvious steps.
- 14 Make **sure/shore** your car is tuned.
- 15 **Write/Right** to newspapers and politicians.

## Back To The Text...

- 16 The purpose of this text is to inform and  
a entertain.    b persuade.
- 17 Who do you think this text is most likely written for?  
a politicians    b the public
- 18 Another good name for this text would be:  
a Let's Act Now  
b A Losing Battle

## Think About This

- 19 Look at the illustration on the front of the card. What type of disaster is about to hit the town?  
a a tsunami  
b a tornado  
c a hurricane
- 20 Why has the writer used brackets e.g. (coal, gas and oil) in section 2?  
a They show nouns.  
b They show emphasis.  
c They enclose extra information.
- 21 The main idea in section 4 relates to  
a excessive fuel use.  
b the population explosion.  
c the consumption of manufactured items.
- 22 The writer believes the situation is  
a hopeless.  
b retrievable.  
c irrelevant.
- 23 The first time the writer offers a solution to the problem of Climate Change is in  
a section 5.                      b section 7.  
c section 10.                     d section 11.

## Challenge Option

Writing: Write an acrostic poem called GREENHOUSE.

