

1 a) Read the poem and discuss the questions after it in pairs.

BARE NECESSITIES

THERE IS LITTLE I NEED TO SURVIVE:

SOME AIR, SOME FIRE, SOME WATER, TOO,
FOUR WALLS, A ROOF, A KITCHEN AND A LOO,
SOME FRIENDS, SO I DON'T FEEL ALONE,
AND MY MOBILE PHONE.

SOME CLOTHES, ESPECIALLY MY JEANS,
BACON AND TINS OF HEINZ BAKED BEANS,
MARS, SNICKERS AND TOBLERONE,
AND MY MOBILE PHONE.

MY FRIDGE, MY FREEZER AND MY TV,
AND DIGITAL CAMERA AND DVD,
AND THE COOL GEAR THAT I'VE OUTGROWN,
AND MY MOBILE PHONE.

AND ADIDAS, NIKE AND SATELLITE DISH,
A FRIEND, AND LOVE, AND MEAT, AND FISH,
AND MAKE-UP, AND PERFUME, AND CARS, THAT GO FAST,
AND HOPE THAT THE FUTURE WILL BE BETTER THAN THE PAST,
AND MY BEATLES CDs AND MY PEARL JAM LIVE.

BUT IF IT WAS NECESSARY, TO SURVIVE
I'D GIVE UP

EVERYTHING I OWN
BUT MY MOBILE
PHONE!



- Which of the following statements is closest to what you think the meaning of the poem is?
 - People don't need much
 - People need a lot
 - People need too much
- Do you think the poet is serious or he is making fun of our consumer society?
- Do you think our society is too materialistic? Give reasons and support your answer.
- Which of the things that the poet mentions are wants and which are needs?

¹a consumer [kən'sju:mə] — споживач; (тут) споживчий



b) In pairs, change the words of the poem so that it reflects your 'bare necessities'. Then read your poem to the class.

2 Work in small groups.

a) Look at the photos and say whether these inventions have had a good or bad effect on people's lifestyle. Think of arguments that give different points of view about each invention.



b) Discuss the following:

- Have our lives always been improved? Have we become too passive?
- Are we too dependent on technology? How dangerous could it be?

3 a) Listen, then read the interview with a theoretical physicist for his views on the future and pay attention to the words in bold. Consult a dictionary.

Interviewer: Life is change, and the only thing that's certain about the future is that it is uncertain. So what does the future hold for us? A step forward in humanity's **striving for perfection**? A general nervous **breakdown** as the environment changes faster than we can adapt to it? We asked Clark Frinton, a theoretical physicist, for his views. Clark, are you optimistic about the future?

Frinton: Generally speaking, yes. But we have serious problems to solve, and I don't think we will have solved them all by the middle of the century. Our prime goal must be to ensure our **survival**, and I think, there are two main problems we need to solve **in this respect**: ensuring enough energy and food while **preserving** our environment. To take energy first, at the moment we are largely using **fossil fuels** that pollute our environment and contribute to the **global warming** that could lead to rising sea levels and to the **depletion** of the **ozone layer** that lets in solar radiation that could endanger mankind's **existence**. The present alternative is **nuclear**

fuel, which, while not directly polluting the environment, contains untold dangers from **radiation** — remember the Chernobyl and Fukushima nuclear power plants catastrophes. Therefore, we need an alternative source of energy. I think the future lies in fusion¹ power.

Interviewer: But as I understand it, it takes more energy to initiate a fusion reaction than the process actually produces.


Frinton: Yes, that's true at the moment, but we're making progress. If we can solve that problem, then we'll have unlimited cheap power, and we should reduce the **greenhouse gases** and global warming. We may even be able to heat our houses and power our cars in this environmentally-friendly way.

Interviewer: Clark, you mentioned energy and food. What about food?

Frinton: Well, considering the expected increase in population, I think, our only answer is the greater use of genetically modified food. To feed the extra billions, we have to develop new methods of growing crops and increasing **yields**. Farmers will be using synthetic soils, and new forms of micro-organisms, plants and animals will become **commonplace**. Soon we'll be seeing fields of identical sheep, genetically engineered for their meat or their wool, if there is space available.

Interviewer: But if we **interfere** with the genetic structure of the food we eat, might we not also interfere with our own genetic structure?

Frinton: That's theoretically true, and GM food must be thoroughly² tested. But my belief is that we will be able to produce safe GM food, and that most people on this planet will be eating it as part of their normal diet.



Clark Frinton

PhD, theoretical
physicist

¹fusion ['fju:ʒn] — синтез
²thoroughly ['θɔ:lədli] — тщательно

Interviewer: So we'll be eating perfectly straight bananas to save packing space.

Frinton: And buying milk that will never go bad and which contains proteins against illnesses as well.

Interviewer: What about society? Do you see major changes there?

Frinton: Well, I see major changes resulting from advances in robotics and the Internet. To take robotics first, robots and other automated machinery will be commonplace in the factory, agriculture, building and construction, undersea activities, space, mining and elsewhere. This will cause us to completely **redefine**¹ the concept of 'working class'. In addition, soon more shopping will be done over the Internet than in shops. There will be a huge increase in 'labour-saving' devices and a **consequent reduction** in the need for labour.

This could also mean a

considerable increase in our free time, allowing us more time to be with our friends and families and to **pursue**² our own interests.

Interviewer: Might not this lead to massive unemployment? How will people earn their livelihood?

Frinton: That's a good question. There will certainly be a change in workplace. Many people will be working from home through the Internet, and there won't be the need for offices to be situated in city centres or a need for schools, for that matter, since education could be performed via the Internet. I suspect that the majority of jobs will be short-time contract work with a resulting lack of job **security**.

Interviewer: And there could be an increase in the gap between the haves and the have-nots in society, which could cause social unrest.



WORD FILE

- an advance [əd'vɑ:ns]
- a breakdown ['breɪkdaʊn]
- an existence [ɪg'zɪstəns]
- a fossil ['fɒsl]
- a fuel ['fju:əl]
- an implication [ˌɪmplɪ'keɪʃn]
- radiation [ˌreɪdɪ'eɪʃn]
- reduction [rɪ'dʌkʃn]
- survival [sə'vaɪvl]
- a yield [ji:ld]
- global warming [ˌglɔ:bl 'wɔ:rnɪŋ]
- greenhouse gas [ˌɡri:nhaʊs 'gæs]
- ozone layer ['əʊzəʊn leɪə]
- to preserve [prɪ'zɜ:v]
- consequent ['kɒnsɪkwənt]
- nuclear ['nju:kliə]
- despite smth [dɪ'spaɪt]
- in this respect
- to become commonplace
- to cope with smth
- to keep pace with
- to strive for perfection

¹to redefine [ˌri:dɪ'faɪn] — перевизначати, повторно визначати

²to pursue [pə'sju:] — займатися

READING

Frinton: True, but there should be an increase in democracy through the developments in communications. Voting via the Internet could become routine, so the ordinary person will have more of a say in political life.

Interviewer: But what about the 'info-poor', that is, the segment of the world's population without access to information?

Frinton: Well, new technology is always expensive at first, but then prices fall. Only the very wealthy could afford radios, telephones and TVs when they were first introduced. Now everyone has them.

Interviewer: But don't you think that those in power will use developments in technology to suppress their populations?

Frinton: On the contrary. I believe that governments will have less control over the thinking of their populations. Again, largely through developments in communications and especially the Internet. In fact, I can see the day when, as the world's population logs on, users will create 'cybernations' of highly-informed people sharing mutual ideals, and national boundaries will become irrelevant¹.

Interviewer: One final question. Will we be able **to cope with** all these changes? In Darwinian terms, can we evolve fast enough **to keep pace with** the rate of progress?

Frinton: Well, I believe that it's precisely the ability to adapt that has allowed humanity to evolve to where it is today. And, **despite** the changes, we'll still be going to the toilet in the morning, falling in love, having our hearts broken, dealing with our ambitions and frustrations², and trying to find out who we are.

b) Read the interview again, then copy and fill in the table.

Advances	Implications ³

¹irrelevant [i'relɪvənt] — недоречний; що не стосується справи

²a frustration [frʌ'streɪʃn] — розчарування

³an implication [ˌɪmplɪ'keɪʃn] — смисл, зміст

- 4 a) *Think and say using the phrases below:*
- What are your personal reactions to the article?
What interested me most was ...
What shocked me most was ...
What worried me most was ...
What I consider most likely is ...
What I consider least likely is ...
- b) *The interviewer sometimes uses questions to put arguments against what Frinton says. Can you find three of them?*
- c) *Think of your own arguments against what Frinton says and put them in the form of questions you could ask him. Then pass your questions to someone else to answer.*

5 *In groups, discuss the following questions.*

- 1 How far do you believe what Frinton says?
- 2 Are you worried about the future or are you looking forward to it?
- 3 What do you think of robots replacing people in the workplace?
- 4 Do you think a robot could ever replace you?
- 5 How would you spend your time if you didn't have to go to school?
- 6 Have you seen any results of pollution in your environment?

6 a) *Work in pairs. Read the list of the environmental problems and speak what you've already known about them.*

- water problems
- destruction of rainforests
- rising sea levels
- industrial pollution
- climate change
- endangered species / threats to wildlife

b) *Read the text and fill in the table after it.*

WHAT'S HAPPENING
TO OUR ENVIRONMENT?

Many people believe that the way we live our lives today is having a very damaging effect on the environment. Here are some examples of the kinds of problems we face, followed by some things that we can do to help protect our environment.



THE GREENHOUSE EFFECT. Pollution from cars, factories and power stations is causing harmful greenhouse gases to build up in the Earth's atmosphere. These gases prevent heat from escaping, and as a result our planet is getting warmer. This process is known as global warming.

Global warming is causing the ice at the North and South Poles to melt and sea levels and sea temperatures to rise, leading to serious flooding and violent storms in many parts of the world. In other places, there will be less rain and the land will be turned into desert.

POLLUTION. The biggest polluter today is the car. Exhaust fumes are the main cause of poor air quality, which can make people feel ill and have difficulty in breathing. This problem is especially bad in cities, where the number of cars is increasing every year, causing serious congestion and filling the air with smog. Governments try to improve the situation by encouraging people to use their cars less or buy cars that do not use as much fuel.

All over the world, wildlife habitats are being destroyed. There are many endangered species that could soon become extinct. Rainforests are being cut down so that people can grow crops and feed the world's increasing population. Modern farming methods, for example using pesticides and genetically modified crops, are having a very bad effect on the food chain. Killing insects may be useful for growing crops, but it reduces the amount of available food for other animals and birds.

CLIMATE CHANGE is also making conditions difficult for some animals. In the Arctic, the ice is melting, threatening the survival of animals such as polar bears.

The problem	The reason	The effect

7 Discuss the questions in groups.

- Which of these environmental problems do you think are the most serious in Ukraine? Why?
- How do you think they will affect our country in the future?





VOCABULARY POINT

prevent, v — to stop something from happening or someone from doing something: *Label your suitcases to **prevent** confusion.*

avoid, v — to stay away from someone or something: *We left early to **avoid** the traffic.*

protect, v — to keep someone or something safe from injury, damage or loss: *It's important to **protect** your skin from the harmful effects of the sun.*

1 a) Read and choose the verb 'prevent', 'avoid' or 'protect' to complete each sentence. Put it in the appropriate form if necessary.

- The government has opened a nature reserve to ... people from hunting endangered species.
- This cream is perfect for ... you from insect bites.
- The new law ... people from building houses near the National Park.
- I think we should set out early to ... the worst of the traffic.
- You ought to be wearing a hat to ... your head from the sun.

2 Read and answer the question.

The words in bold in the following extracts from the interview with Frinton have more than one meaning. Which meaning fits the word as used by Frinton?

- Our **prime** goal must be to ensure our survival.
 - most important
 - of the very best quality
 - most suitable
- ...ensuring enough energy and food while **preserving** our environment.
 - preventing something from changing
 - protecting something from danger or damage
 - storing something in a way so it doesn't decay
- Nuclear fuel contains **untold** dangers from radiation.
 - too much or too many to be measured
 - not said to anybody
- We have to develop new methods of growing crops and increasing **yields**.
 - the amount of food produced
 - the amount of profit produced

VOCABULARY

- 5 New forms of micro-organisms, plants and animals will become **commonplace**.
- a) *ordinary and boring*
b) *usual and widespread*
- 6 I see major changes resulting from **advances** in robotics and the Internet.
- a) *money paid to someone before they are due to receive it*
b) *developments or improvements*

3 Match the words with their definitions.

- | | |
|-------------------------------------|-------------------------|
| <input checked="" type="checkbox"/> | 1 global warming |
| <input type="checkbox"/> | 2 the ozone layer |
| <input type="checkbox"/> | 3 climate change |
| <input type="checkbox"/> | 4 the greenhouse effect |
| <input type="checkbox"/> | 5 ecology |
| <input type="checkbox"/> | 6 the environment |
| <input type="checkbox"/> | 7 the food chain |
| <input type="checkbox"/> | 8 habitat |
| <input type="checkbox"/> | 9 rainforest |
| <input type="checkbox"/> | 10 deforestation |
| <input type="checkbox"/> | 11 endangered species |

A

- a the air, water and land where people, animals and plants live
- b the way in which plants and animals and natural features of a place affect and depend on each other
- c the natural home of a plant or animal
- d the natural system in which, for example, an insect eats a plant, a bird eats the insect, an animal eats the bird, etc. with the result that all these different forms of life depend on each other
- e general increase in the temperature of the world, caused by pollution from cars, factories, etc.
- f changes in the weather around the world, which result in much higher or lower temperatures, violent storms, floods, etc.
- g the gradual warming of the Earth caused by pollution that stops heat from leaving the Earth's atmosphere
- h a layer of natural gases around the Earth. The ozone layer protects the Earth from the harmful effects of the sun, but pollution is causing a hole in it
- i a tropical forest with tall trees growing very close together, in an area where it rains a lot. It is very important for the balance of the Earth's ecology
- j a situation, in which most of the trees in an area are cut down or destroyed, resulting in great damage to the environment
- k a type of plant or animal that is likely to stop existing completely, for example because of hunting or pollution

B

- | | |
|--------------------------|--------------------|
| <input type="checkbox"/> | 1 extinct |
| <input type="checkbox"/> | 2 pollution |
| <input type="checkbox"/> | 3 greenhouse gases |
| <input type="checkbox"/> | 4 fumes |
| <input type="checkbox"/> | 5 acid rain |
| <input type="checkbox"/> | 6 toxic waste |
| <input type="checkbox"/> | 7 pesticides |
| <input type="checkbox"/> | 8 GM |
| <input type="checkbox"/> | 9 fossil fuels |
| <input type="checkbox"/> | 10 sea level |

- a** the natural level of the water in the world's oceans, which will rise if global warming continues
- b** harmful chemicals, gases, or waste materials from factories, cars, etc. that have gone into the air, land or water
- c** if a type of animal or plant is extinct, it no longer exists and there are no animals or plants of that type alive
- d** harmful gas or smoke, for example from cars or factories, which damages the environment and harms people's health

- e** gases that form a layer around the Earth and keep the heat in. These gases are produced naturally, but increasing quantities of gases are being produced from cars and factories, causing global warming
- f** such crops have had their genes changed in order to make them more convenient to grow. Some people believe that they may cause damage to the environment
- g** chemicals that are used for killing insects and animals that attack crops
- h** rain that contains pollution from factories, power stations, etc., which cause damage to forests
- i** fuels, such as coal or oil. Burning these fuels causes a lot of carbon gases to be released into the atmosphere
- j** very dangerous waste materials, for example, from nuclear power stations or chemical factories



4 Complete the sentences with some of the words and word combinations above (see task 3). Put them in correct forms.

- ... cover about 6% of the Earth's surface.
- The white rhino is close to become ...
- New laws are being introduced to protect ...
- The hole in ... is thought to be responsible for an increase in cases of skin cancer¹.
- Many consumers don't want to eat ... foods.
- There are dangerously high ... levels in our rivers.
- The rapid pace of ... in Malaysia makes the world community to worry.
- Scientists are predicting a substantial rise of ... over the next 20 years.
- The threat to life higher up ...
- An international conference on ... took place in Paris last Monday.

¹a skin cancer [ˈskɪn kænsə] — рак шкіри

PASSIVE VOICE REVISION

- 1 Complete the sentences by changing the verbs in brackets into the correct present tense forms.

Active Voice

- 1 Some countries ... (*not, sign*) the Kyoto Protocol yet and ... (*refuse*) to change the national way of life.
- 2 The reality ... (*be*) that we all ... (*use*) up the world's resources and simple lifestyle ... (*can, help*) preserve the planet for future generations.
- 3 At the moment many people ... (*drive*) car dangerously and carelessly.
- 4 Burning certain fuels ... (*produce*) sulfur dioxide. This ... (*mix*) with rainwater and ... (*cause*) acid rain.
- 5 If the population growth ... (*not, slow*) down, pollution will increase.

Passive Voice

- 1 They are putting into the air a lot of pollutants and greenhouse gases, by which the world's climate ... (*affect*).
- 2 The layer of gases in the atmosphere has got thicker due to industry and the gases that ... (*emit*) by cars.
- 3 At the moment successful campaigns ... (*hold*) against people driving big sports cars.
- 4 One shouldn't forget that the environment ... (*destroy*) all the time by using automobiles.
- 5 This means more heat ... (*reflect*) back to Earth, causing floods and draughts.

- 2 Refer the sentences to the appropriate tense forms in Passive.

A Present Simple B Past Simple C Present Perfect D Past Perfect

- 1 His contribution has not been duly appreciated up to present days.
- 2 His name is associated with invisible rays.
- 3 The results were published in scientific papers of the Vienna Academy of Sciences.
- 4 100 pages had been published on the subject of cathode lamps and invisible rays.

- 3 Choose the correct tense form to complete each sentence.

- 1 Her idea (**took / was taken**) for granted.
- 2 The wind (**has broken / has been broken**) their glass door.
- 3 Italian (**speaks / is spoken**) in Switzerland.
- 4 His (**is reading / is being read**) at the moment in the society.
- 5 Da Vinci (**had painted / had been painted**) Mona Lisa before some of his other famous paintings.


**GRAMMAR
POINT**
'It' as new subject + passive

Instead of 'People say that ...', we can say 'It is said that ...'

Example: People say that it is never too late.

It is said that it is never too late.

We can do the same with verbs such as *know, believe, consider, think, report, expect, understand.*

4 Rewrite the following sentences using 'it' as a new subject.

- 1 People once believed that the earth was flat. It ...
- 2 People now know that the earth is round. It ...
- 3 Somebody has said that we are not alone in the Universe. It ...


**GRAMMAR
POINT**

Instead of 'People say that Fred is a millionaire.' we can say '**It is said that Fred is a millionaire.**', or we can make Fred the subject: '**Fred is said to be a millionaire.**'

The Forms of the Infinitive

	Active Voice	Passive Voice
Simple	to do	to be done
Continuous	to be doing	
Perfect	to have done	to have been done
Perfect Continuous	to have been doing	


5 Rewrite the following sentences, starting with the given words.

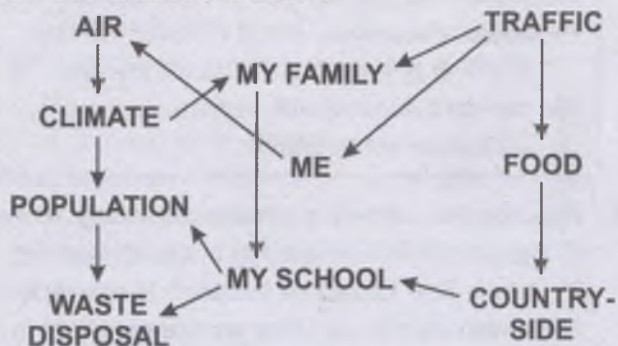
- 1 It is known that William is a scientist.
William ...
- 2 It is said that the inventor of the first computer is Charles Babbage.
Charles Babbage ...
- 3 It is thought that Fleming discovered penicillin by accident.
Fleming ...
- 4 It was reported that X-rays had been discovered by W. Roentgen.
W. Roentgen ...

LISTENING

- 1 Look at the scheme and explain the interconnections between different parts of the environment.

WHAT IS 'THE ENVIRONMENT'?

It contains many different parts, just like the pieces of a big jigsaw puzzle. Human beings, animals, buildings, the earth, the air, the seas, our climate...and all these parts interconnect.



- 2 In pairs, think how the phenomena in both the columns can be connected and comment on them.

A

- 1 global warming
- 2 earthquakes
- 3 destruction of forests (tropical forests in particular)
- 4 highly developed and booming economy
- 5 world population growth
- 6 agricultural mismanagement
- 7 development of new technologies
- 8 consumer society

B

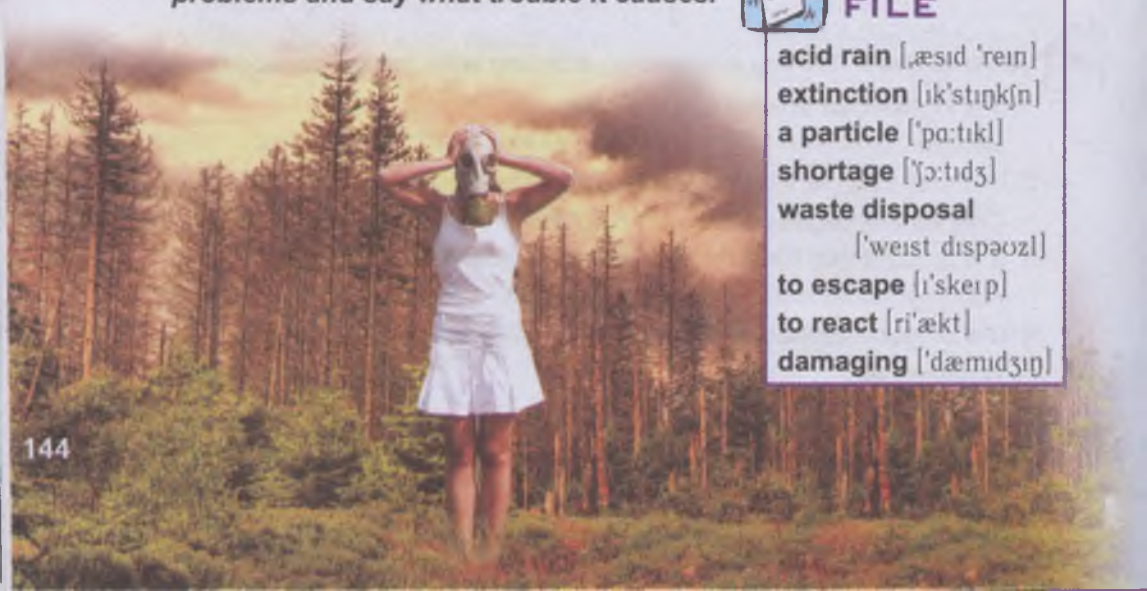
- a water shortages
- b climate change
- c heat waves, intense rainstorms and floods
- d growing demand for energy
- e land erosion
- f increasing production of carbon dioxide (the main greenhouse gas)
- g growing demand for comfort, electric devices, machines, etc.
- h tsunamis

- 3 a) Listen about one of the environmental problems and say what trouble it causes.



WORD FILE

acid rain [ˌæsɪd ˈreɪn]
 extinction [ɪkˈstɪŋkʃn]
 a particle [ˈpɑːtɪkl]
 shortage [ˈʃɔːtɪdʒ]
 waste disposal
 [ˈweɪst dɪspəʊzəl]
 to escape [ɪˈskeɪp]
 to react [rɪˈækt]
 damaging [ˈdæmɪdʒɪŋ]



b) Listen again and complete the sentences.

- 1 Acid rain is a result ...
- 2 It damages ...
- 3 Cars burn ...
- 4 Some gases react with ...
- 5 Acid rain can take the form of ...
- 6 Governments need to ...
- 7 It's better to use electric appliances only ...



4 Choose one of the problems below and discuss it in pairs. Explain:

- 1 why you find this problem urgent
 - 2 what possible attitudes to this problem can exist
 - 3 if there is anything possible to do to change the situation for the better
 - 4 what in particular you think can be done
- shortage of fresh water
 - waste dumping
 - air, water and soil pollution
 - radioactive pollution
 - global warming
 - climatic change
 - burying nuclear wastes
 - ozone layer destruction and the increase of ultraviolet light
 - forest destruction and deforestation
 - endangered plants and animals
 - excessive exploitation of environmental resources
 - extinction of species
 - disruption of ecological balances
 - overspending of energy resources
 - forest fires
 - land erosion and flooding

5 Read and speak on the reasons of the greenhouse effect.

Now scientists are more or less sure about the greenhouse effect, which makes the Earth warmer by trapping energy in the atmosphere because certain gases (carbon dioxide¹ methane and some others) prevent heat from escaping into space. Look at the picture and say how people increase the amount of such gases in the atmosphere. Add some more examples to illustrate your answer.

¹carbon dioxide [ˌkɑːbən daɪ'ɒksaɪd] — углекислый газ

SPEAKING

1 Ask and answer the questions in pairs.

- 1 Why do people at the beginning of the new millennium spend so much time and effort drawing public attention to the problem of ecology?
- 2 What ecological problems that humanity faces nowadays in your opinion are most urgent?
- 3 Why are scientists so much concerned about the greenhouse effect and the process of global warming?
- 4 Do you think global warming is caused by human activities? Which of them?
- 5 Since the Industrial Revolution, which started more than 200 years ago, the need for energy has steadily increased, hasn't it? Why are people nowadays very much concerned about energy they use to light and heat homes, the energy that makes cars run, etc.?
- 6 It is a known fact that during the history of the Earth there were periods of dramatic climate changes, which occurred naturally, Ice Age among them. Why do you think scientists are so much concerned about the current climate changes?
- 7 Can you say that the climate in the place where you live is changing? How? Do you find these changes for the better or for the worse? Can you give examples of climate changes in other places of the planet?
- 8 Do you think the humankind can solve the world's ecological problems? If so, in what way?
- 9 Can individuals help in this area? What ways?



- 2 a) Read five short conversations on pages 147-148. For each one choose a word from the box to describe the speaker's main purpose.

encourage, persuade, recommend,
decide, advise, promise, agree,
disagree, remind, complain

- Conversation 1:
Conversation 2:
Conversation 3:
Conversation 4:
Conversation 5:



WORD FILE

an interference [ˌɪntə'fɪərəns]
pesticides ['pestɪsaɪdɪz]
to complain [kəm'pleɪn]
to convince [kən'vɪns]
to dig [dɪg]
to persuade [pə'sweɪd]
to remind [rɪ'maɪnd]
harmful ['hɑ:mfl]
renewable [rɪ'nju:əbl]
sustainable [sə'steɪnəbl]

1

Male: Let's plant a tree in the back garden. It will be great for wildlife and it will give us some shade in the summer.

Female: Oh, I don't know. Won't it be expensive, and a lot of hard work?

Male: Not really. I'll do all the digging. It'll look great when it's done, trust me. You're always talking about ways to help the environment well, this is a really good way to start.

Female: Oh, OK, then. What kind of tree shall we get?

2

Male: What are you going to do about your car? It broke down again yesterday, didn't it?

Female: Yes. I'm not sure what to do. I could sell it and buy a bike. Or I could try and fix it one more time.

Male: You know it will only break down again. It always does!

Female: You're right. I'll sell it. That way I'll get fit and help the environment at the same time!

3

Male: I went to the bottle bank today, and guess what? It was completely full!

Female: Oh that's a shame. Did you have to bring all the glass home again?

Male: Yes. There was a sign saying not to leave anything on the ground. I really don't understand — why they can't empty it more often. What's the point of having a bottle bank if you can't put any bottles into it?

Female: You're right. Maybe you should write a letter.



4

Female: I think nuclear power stations are the best way to make energy because they don't make any pollution.

Male: That's not true. Just think about the waste they produce. Some of it is dangerous for thousands of years.

Female: There are safe ways to store it now — they can bury it deep under the ground.

Male: Well, I don't think that's safe — I would like to see more electricity being made from wind and the sun.

5

Male: Did you get that book about the environment I asked you to buy for me?

Female: Oh, sorry. I completely forgot. What's it called?

Male: *How to Save the Planet*. It costs £8.99 and you can get it from Wetherby's bookshop.

Female: OK. I'll get it for you tomorrow when I go to town.

b) Choose and dramatise any conversation in pairs.

3 Match the words with their definitions.

- a methods of farming, fishing, etc. of this kind do not use up more land, natural resources, etc. than can be replaced naturally, and therefore, do not cause harm to the environment
- b the word is used to talk about anything that is good for the environment, or about ideas relating to protecting the environment
- c sources of energy of this kind use fuels that can be replaced naturally, and so they are never completely used up
- d products of this kind or methods do not cause harm to the environment
- e kind of technology, electricity, etc. that does not produce pollution and does not harm the environment
- f are produced naturally, without the use of chemical pesticides that have a bad effect on the environment

- | | |
|--------------------------|----------------------------|
| <input type="checkbox"/> | 1 environmentally-friendly |
| <input type="checkbox"/> | 2 sustainable |
| <input type="checkbox"/> | 3 renewable |
| <input type="checkbox"/> | 4 green |
| <input type="checkbox"/> | 5 organic |
| <input type="checkbox"/> | 6 clean |

4

Read and match the headings (A-C) with the appropriate parts of the text (1-3).

(A) GREEN PRODUCTS



ALTERNATIVE
SOURCES
OF ENERGY (B)



ENVIRONMENTALLY-
FRIENDLY FORMS
OF TRANSPORT (C)

- 1 Burning **fossil fuels** to produce energy causes a lot of pollution. Renewable sources of energy such as **wind power**, **wave power** and **solar power** are much cleaner. People can also easily reduce the amount of energy they use. A lot of electricity is wasted by leaving on lights, televisions and other electrical equipment when they are not being used.
- Our society produces huge amounts of waste, which end up having to be burned, buried or taken out to sea. This waste produces **greenhouse gases** and also spoils the environment. If we **recycle** material such as glass, paper and metal, this will reduce the amount of waste that is produced.
- 2 If more people used public transport, this would reduce the amount of pollution. Public transport is much more **environmentally-friendly**, because buses and trains can carry large numbers of people at the same time, whereas cars often carry only one person. **Car pools** are another way of reducing the number of cars on our roads. The big car companies are also working on developing new engine technology, so that cars can run on **cleaner** fuels such as hydrogen instead of petrol. For shorter journeys cycling is a much healthier alternative to driving a car, and many towns have introduced special **cycle lanes**.
- 3 We can also help the environment by choosing to buy **green** products, for example **organic** foods that are produced without using pesticides. Not only pesticides are bad for the environment, the chemicals in them can also be harmful to humans. If we buy wood from **sustainable** sources, this will mean that our forests can be maintained for future generations.

SPEAKING

So much of modern life is based around shopping and buying new things! Everything is out-of-date in only a few years or even months. If we stopped buying and throwing away so many things, this would help ease the pressure on the environment.

- c) **Speak on what we can do to protect our environment.**
Use the words that are in bold in the text.

5 Read and discuss all the listed solutions to some environmental problems in class. Add at least two or three of your own solutions.

- 1 Environmental awareness should be increased everywhere.
- 2 Politicians should change their ways of thinking and think globally instead of securing their own national interests.
- 3 Global ecological institutions, competent and trusted, should be created.
- 4 New technologies should not be used unless they are proved to be ecologically safe.
- 5 Scientists of different countries should work together to develop new 'clean' sources of energy and new ways of energy conservation.
- 6 ...
- 7 ...
- 8 ...

You may start your discussion like this.

It is high time that people all over the world should recognise the ecological truth: nature reacts to human interference. ...



1 **Make the active sentences passive and the passive ones active.**

- 1 The bride's aunt is going to prepare all the food for the wedding reception.
.....
- 2 The towels aren't washed every day by the hotel staff.
.....
- 3 His young assistant was counting the leaflets.
.....
- 4 Their apartment is being redecorated by a famous interior designer.
.....
- 5 The students have not yet used the new laboratory.
.....
- 6 He was believed to have been killed by the terrorists.
.....

2 **Read the texts below and say what the writer's purpose is in each case. Circle the best verb for each.**

suggest
remind
review

- 1 If you want to help local insects and birds, a really good way to do it is to let your garden grow a little bit wild and not tidy it up too much. If you don't want the whole garden to be untidy, just choose one area at the back of the garden and let nature take control of it.



persuade
explain
warn

- 2 From the mid 1800s until the 1950s large cities in Britain, such as London and Manchester, suffered every winter from thick, yellow fog. It was caused by smoke from burning coal in homes and factories. Many people became ill from it every year. Eventually the government passed laws to control the amount of fuel that could be burnt in the cities and the fog disappeared.



recommend
promise
compare

- 3 There are several ways that you can use less power in your home. First of all, if you are cold, put on a jumper instead of turning up the heating. If you are hot, turn down the heating rather than opening a window. Switch the TV off when you are not using it and always buy low-energy light bulbs.



3 Read and role-play the situation.

Some years ago in a number of countries there was a campaign of protest against McDonald's restaurants, which used beef produced in Argentina, where the cattle for this beef was raised on the land cleared from rain forests. Imagine that you've joined the campaign and are picketing one of such restaurants. What will you say to people, who are going to visit McDonald's, trying to stop them from doing it?



4 a) Read about three British environmental groups, and complete each paragraph (1-3) with the suitable final sentence (A-C). See page 153.

ENVIRONMENTAL GROUPS



There are several groups in Britain, which try to protect the environment. The most famous group is *Greenpeace*, which campaigns in many countries around the world. They have campaigned against hunting whales, pollution in the North Sea, nuclear power, testing nuclear weapons and many other issues. *Greenpeace* supporters organise demonstrations and they also take direct action. (1) ...



Friends of the Earth

Another important environmental group is *Friends of the Earth*. They have led campaigns against global warming, the destruction of the rain forests, and the hole in the ozone layer. There is also a *Green Party*, which is a political party. (2) ...



There are many other groups, which are concerned with protecting the environment, for example, the *Royal Society for the Protection of Birds (RSPB)*, which campaigns to protect birds against dangers, such as pesticides and hunting. Some environmental groups are very old. (3) ...

- A** The oldest is the National Trust which was set up in 1895 to protect parks, buildings and monuments in Britain.
- B** For example, they block pipes that pour pollution into the sea.
- C** It regularly fights elections and it has won seats in the European Parliament and on local councils.

b) In groups, speak on the following.

- What environmental groups are there in Ukraine?
- What issues do they campaign about?
- What kinds of things do they do?

5) In groups, read and discuss the problem.

FEEDING THE WORLD

The environment is about plants and animals but it's about humans, too. They need to work and earn money, and they also need to eat. Many people do not have enough food. So scientists and governments are always looking for new ways to feed them. The problem is that many of these new discoveries and ideas bring new problems!

For example, are GM crops a solution or problem?

Supermarkets want to sell cheap food and fruit and vegetables that look big and bright and 'perfect'. To grow these, some farmers use more and more chemicals on their crops. When you eat an apple, do you know what chemicals are on the skin? What is the effect of these on our health?

GM (Genetically-modified) crops sound like a great idea. They don't get diseases like normal crops. They produce lots of strong plants. They are cheap. Isn't this a great way to feed the world, especially poor countries?

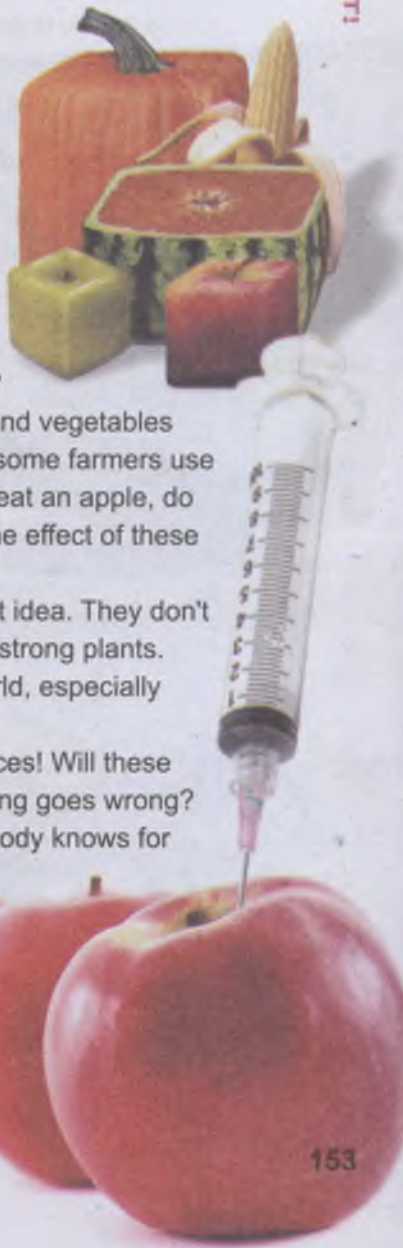
The problem is that nobody knows the consequences! Will these crops affect human health? What happens if something goes wrong? Can GM crops encourage diseases like cancer? Nobody knows for certain! So people are nervous.

Are GM crops a step too far?

Will they affect our

environment — and us?

We don't know!





6 Do the group project and make a leaflet on the environment. Read the situation and follow the instructions below.

ECO-Action (Environmental Community Action; www.eco-act.org) is a new environmental group in your city. In order to encourage more people to take part in community activities, such as clearing up the local surroundings, they have decided to ask secondary school students to design a leaflet, which would invite people to participate in the forthcoming project and also provide necessary information.

1 Discuss and include the following points in the text of your leaflet.

- point out the increasing number of people taking part in such activities
- briefly present the project

- explain what way people can participate
- say how this project will help the environment

2 Write 180-200 words.

- choose a catchy title
- be informative, concise and convincing
- use subheadings for clarity
- write in short sections
- write something about each of the points in the instructions
- use present tenses
- make it visually attractive

3 Present your leaflet in class.



1 **Get some information and discuss it in pairs.**

Discursive essays are pieces of formal writing which discuss a particular problem or issue. The aim of these essays is **not** to persuade the reader that the writer's opinion is the only right one, but to make him/her consider the problem from various points of view. The writer focuses on various aspects of a problem or issue.

Each viewpoint and opposing viewpoint should be discussed and supported by relevant examples.

There are three main types of discursive essays:

- 1 For and Against Essays
- 2 Opinion Essays
- 3 Essays Suggesting Solutions to Problems

2 **In groups, choose one of the following topics and decide which type of discursive essay would be most appropriate to deal with the topic. Make a list of points you could include in the essay.**

① **Money Is the Best Motivator**

② **HOW TO REDUCE STRESS AMONG STUDENTS**

③ **Domestic Robots Will Make Our Lives Easier**

④ **Violence in Cartoons** ⑤ **Working on a Family Firm**

3 **Suggest two topics for different types of discursive essays you'd like to write about.**

- for and against essay
- opinion essay
- solutions to problems essay

WRITING
POINT



Opinion Essay

It is a kind of a discursive essay in which you express your personal opinion on a particular topic. You must state your opinion clearly and support it with relevant information and examples. You should also present the opposing arguments supported by reasons. Subsequently you should indicate why they are in your opinion, rather unconvincing. The opposing viewpoint is written in a separate paragraph.

The structure of an **opinion essay** is as follows:

INTRODUCTORY PARAGRAPH

Paragraph 1

introducing the topic and clearly stating your opinion

BODY PARAGRAPHS

Paragraph 2

1st viewpoint with justifications

Paragraph 3*

2nd viewpoint with justifications

Paragraph 4*

opposing viewpoint with justifications

CONCLUDING PARAGRAPH

Paragraph 5

summarising or restating your opinion

- 4 a) *Work in pairs. Read the statement, agree or disagree with it. Explain your viewpoint. Briefly note down the main reasons for your opinion.*

Our children will live in a worse environment than we do.

- b) *Complete the plan for the essay by writing down your ideas.*

Paragraph 1: The present situation and your opinion:

.....

Paragraph 2: First reason for your opinion:

.....

Paragraph 3: Second and third reasons for your opinion:

.....

Paragraph 4: Action we can take; consequences if we don't take it:

.....

- c) *In pairs, make a list of vocabulary connected with the environment that you could use when writing the essay.*

*The number of body paragraphs depends on the number of viewpoints you want to present.

5

a) Read the sample essay without paying attention to the gaps and compare the plan for this essay with the plan you made in task 4b.

Environmentalists have been warning us for many years about the effects of human activity on the environment. (1) Despite being aware of the dangers, we continue to harm it, and for (2) ... I believe that our children will live in a worse world than we do.

I think there are two aspects of human activity, which are especially dangerous. (3) ... is atmospheric pollution, which is caused by exhaust fumes and industry. This will lead to changes in the climate and make sea levels rise. As a (4) ..., our children will live in a warmer world and people living near the coast may have to leave their homes.

(5) ... is the destruction of our natural environment such as rainforests and countryside. (6) ..., we are damaging the habitats of many animals and plants that live there and these will become extinct.

(7) ..., urgent action is needed to protect the environment by reducing pollution and creating nature reserves. (8) ..., the world our children live in will be much less pleasant than ours.

b) Add useful vocabulary from the essay to the list you have made in task 4c.

c) Complete the sample essay with the words or phrases from the box.

consequently, despite, this reason, in my opinion, result, the first, the second aspect, unless we do so

6 Work in pairs. Read the note about an introduction, then do the task after it.

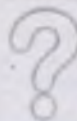
The Introduction

A good introduction:

- grabs the reader's attention
- introduces the general topic
- contains a **thesis statement** (i.e. it tells the reader specifically what the essay will be about)
- gives an idea of your overall plan

WRITING

Read the question below, then compare two introductions (A and B) that answers it and decide which one contains a clear thesis statement.



Advances in technology have solved many problems. However, they have also created new ones. Discuss some of these new problems and give your opinion on how they should be dealt with.

(A) Can you imagine our lives without the benefit of cars, refrigerators, computers and all the other products that we take for granted?

However, these technological advances also have their drawbacks. Some modern technologies create environmental problems through both the energy sources they use and the waste they produce.

(B) Nuclear energy gives us much needed electricity to light our streets, warm our houses and keep our machines running.

However, the world's nuclear powers have enough nuclear bombs to destroy the world many times over. The technological advances that solve one problem also create new ones.

7 Work in groups.

a) Look at the outline of an essay on the question in task 6 and read the two conclusions (A and B) that follow it.

THE OUTLINE OF AN ESSAY

INTRODUCTION

PARAGRAPH 1: Many technological solutions require the use of energy sources that threaten the environment.

Argument 1: burning fossil fields causes global warming + support

Argument 2: nuclear fuel — radiation — nuclear bombs

Recommendation: focus on clean sources of energy, e.g. wind, waves

PARAGRAPH 2: Industrial and household waste threatens the environment.

Argument 1: industrial waste pollutes land and drinking water + support

Argument 2: problem of disposing of household waste + support

Recommendation: more recycling; more waste disposal plants.

A

In conclusion, the technological advances now threaten the world we live in. It is true that these advances have made our lives easier and improved our standard of living in many ways, but what is the point of having the latest technology if it destroys the world we live in? We need to invest in producing energy from clean sources, such as wind and wave power, and close down the nuclear power plants. We also need to stop the manufacture of products that produce toxic waste and allow only the manufacture of products that can be recycled or are biodegradable.

B

In conclusion, the technical advances have created new problems connected with energy sources and waste disposal. Our environment is threatened by the burning of fossil fuels and radiation from nuclear fuels and by the toxic waste that results from the production and disposal of industrial goods. In my opinion, we should focus on clean sources of energy and pay greater attention to recycling and waste disposal plants. We must ensure that the technology of today does not endanger the world of tomorrow.

b) Discuss the questions.

- a Which conclusion restates the thesis statement?
- b Which conclusion restates the main points?
- c Which conclusion ends with a statement that sums up the essay?
- d Which conclusion is better?





- a) Read the following writing task and follow the steps mentioned in task 4 (a-c).

You have had a class discussion on things you can do to protect the environment. Your teacher has asked you to write an essay giving your opinion on the following statement:

The environment we live in will change dramatically in the next 50 years.

- b) Write the essay following your plan. Use some of the transitional words and phrases from the box below.

USEFUL TRANSITIONAL WORDS & PHRASES

- **to list points**
to begin / start with, in the first place, firstly, first of all, secondly, finally, lastly ...
- **to add more points to the topic**
also, apart from this, moreover, what is more, besides ...
- **to introduce contrasting viewpoints**
on the other hand, however, nevertheless, while, although, as opposed to ...
- **to introduce examples/reasons**
for example / instance, like, such as, because, since, therefore, for this reason, especially, therefore ...
- **to conclude**
to conclude, in conclusion, to sum up, finally, lastly, all in all, all things considered, taking everything into account ...
- **to give opinion**
In my opinion / view ...
My opinion is that ...
It is my belief / opinion / view ...
It seems / appears to me ...
As far as I am concerned ...
The way I see it ...
I (strongly / firmly) believe ...
I think / feel ...
I am (not) convinced ...
I agree / disagree that / with ...
I am inclined to believe that ...
I couldn't agree / disagree more that / with

VOCABULARY

1 a) *Combine words from the box into pairs to make expressions.*

endangered	species	natural	changes
ecological	climatic	politics	shrinking
forests	sustainable	bottle	bank
habitats	tropical	development	damage
irreparable	balance	energy	resources
green	tidal	projections	demographic

- | | |
|---------|----------|
| 1 | 7 |
| 2 | 8 |
| 3 | 9 |
| 4 | 10 |
| 5 | 11 |
| 6 | 12 |

b) *Use the appropriate expressions above to complete these sentences.*

- show that by 2050 the world's population will be 3.5 billion.
- Scientists define as the harmonious coexistence between organisms and their environment.
- are caused by global warming and the greenhouse effect.
- is a renewable energy source that converts the energy of tides into electricity.
- Taking two bottles to the for recycling saves enough energy to boil water for five cups of tea.
- Since people need more and more land for farming, are being cleared at an alarming rate.

GRAMMAR

2 *Choose the correct form of the verb to complete each sentence.*

- He (**gave / was given**) a present to her.
- She (**gave / was given**) this present for her wedding anniversary.
- My bike (**runs / is run**) very fast.
- He (**knocked down / was knocked down**) by a bike yesterday.
- Her house (**ruined / was ruined**) in the fire.
- I don't know anything about building. I (**will have built my house / will have my house built**).

CHECK YOUR SKILLS

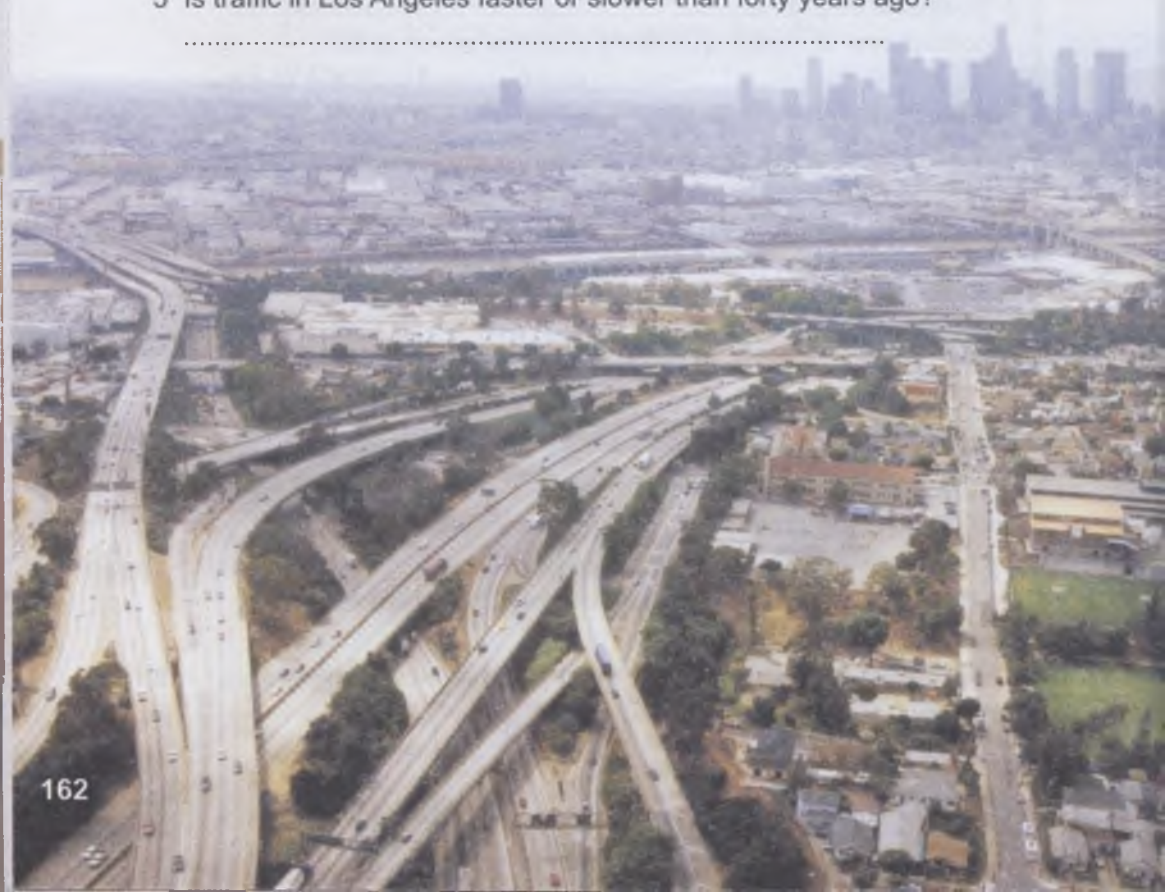
- 7 Although she is a professional cook, she (**has all her cakes made / makes all the cakes**).
- 8 She is a hair-dresser, so she (**has had her new hair-style done / has done her new hair-style**).
- 9 I didn't go to the post office. I (**had all the letters sent by my secretary / had sent all the letters**).
- 10 Our son (**had had his bike repaired / had repaired his bike**). We were so proud of him.

LISTENING



Listen to the interview and answer the questions below.

- 1 What organisation does Jane present?
.....
- 2 What is the topic of the interview?
.....
- 3 What is the amount of driving cars in East Los Angeles per day?
.....
- 4 What three health problems that are caused by heavy traffic?
.....
- 5 Is traffic in Los Angeles faster or slower than forty years ago?
.....



READING

- 4 Read the article and match the headings (A-I) with the paragraphs (1-8). There is an extra heading that you do not need.

- | | |
|-----------------------|---------------------------|
| A A SICKER EARTH | F THE WEATHER FORECAST |
| B IT'S NOT JUST US | G WATER, WATER ALL AROUND |
| C NOT EVERYONE AGREES | H WE NEED TO BUY TIME |
| D A NEW ICE AGE? | I WHO IS TO BLAME? |
| E THE FOOD WE EAT | |

THE CHANGING WEATHER

Climate change is one of the biggest problems facing the world today. But what is it exactly and what could the future hold for us?




- 1 The planet's climate has constantly changed throughout history. Previously this was due to natural processes. However, many scientists believe the changes we have seen over the last century are mainly due to man's activities. The earth is kept warm by greenhouse gases. Without these the world would be extremely cold. The problem is that man's activities have produced extra greenhouse gases like carbon dioxide which have increased temperatures further.
- 2 Scientists fear that by the end of the century, temperatures will have risen by 1.5 to 6 degrees. This means that there could be more rain in many parts of the world, a greater number of hot days and fewer cold ones. Other areas, however, will see less rainfall, it is also feared that the polar ice sheets could be greatly reduced.
- 3 Further food for thought is that increases in temperature will cause the level of the seas to rise. This is because the sea absorbs atmospheric heat, making it expand and thus rise. In addition, glaciers and the polar ice sheets will melt. The next result could be a rise in sea levels of up to five metres. Such changes will inevitably lead to flooding, and the catastrophic floods that happen every hundred years might occur every decade.
- 4 Our health will also be affected, as scientists believe a warmer world will be an unhealthier place. Warm winters will mean fewer deaths from extreme cold, but bacteria that normally die in such cold spells will thrive in the warmer weather and spread infections further.
- 5 Heat waves will cause more deaths from heart attacks, increases in skin cancer and more food poisoning. According to this view, it is only a matter of time before diseases from warmer zones spread to new areas.

5 CHECK YOUR SKILLS

IT'S YOUR PLANET!

- 6 Wildlife and plants will not remain unaffected. Less winter snow and hotter summers will have an enormous impact on life. Rising sea levels will reduce dry surface areas, leading to less food and shelter for other species. The most dramatic impact will be felt at the poles where many creatures depend on the ice to survive.
- 7 Farming practices could be altered. Scientists predict that changes in the weather will mean that we will be able to grow some crops further north. For instance, the UK could see vineyards and sweet corn. On the other hand, drier summers could destroy crops that need more water. Longer warm periods could also mean more pests that could damage agriculture even more than usual.
- 8 There are sceptics, however. Some scientists remain doubtful about the greenhouse effect. They say the climate has changed in the past and that it is too complex to make predictions about. They also say it is unlikely that such an intricate system could be affected by one part as small as greenhouse gases. Such opinions are in a minority, though.



Greenhouse gases can stay in the air for a century. If we cut emissions immediately, we probably will not be able to halt change in the short-term. However, we might slow down change, which would give the planet a chance to adapt, such as following species to alter migration and feeding patterns. It would also give us a chance to do something about the problem.

CAN YOU ... IN ENGLISH?

– Yes, I can.

- read and understand about technological influence on the environment
- listen and understand about harmful effects of human activities
- talk about ecological problems
- discuss about the ways to improve the environment
- understand and use different tense forms of the verb in the Passive Voice
- write an opinion essay

CAN YOU ...
IN ENGLISH?