

## Unit 2 The Environment

### Task 1 Speaking

Can you think of any important environmental or conservation issues in your local area?

### Task 2 Talking about probability

#### A) What do you think will be the most pressing environmental issues in the future decades?

littering and landfills      water pollution      natural disasters      soil pollution  
natural resource depletion      loss of biodiversity      overpopulation  
deforestation      public health issues      air pollution      ozone layer depletion

#### B) Language

We can use the modal verbs *will*, *may* and *might* to talk about how sure we are about something. We can also use the adverbs *probably*, *possibly* and *definitely* with *will/might/may*. The adverb generally goes after *will/might/may* and before *won't/will not*.

E.g. Deforestation *may possibly continue* for another 100 years.

The global population growth *definitely won't stop* in the coming decades.

### Summary of degree of certainty

Complete the table with the following expressions:

*is likely to*    *definitely won't*    *might*    *probably won't*    *will definitely*  
*will probably*    *is unlikely to*    *will possibly*    *may*

Certain	Possible	Unlikely	Impossible

**C) Put the words in the right order to make sentences:**

- likely / is / global warming / for several hundred years / continue / to  
.....
- will / in the future / probably / inside buildings / humans / most of their time / spend  
.....
- to be / ever live / won't / humans / two hundred years / definitely / old /  
.....
- will / the planet Mars / one day / humans / colonise / possibly  
.....

**D) Rewrite the sentences using the words in brackets.**

- Cities of the future are likely to have more green spaces. (probably)  
.....
- The ice caps probably won't melt completely. (unlikely)  
.....
- We'll probably be able to communicate with animals in the future. (might)  
.....
- It's probable that unemployment will continue rising. (likely)  
.....

**E) Word formation**

**Complete the gaps with the correct form of the word in brackets.**

Scientists have high ..... (CONFIDENT) that global temperatures will continue to rise for decades to come, ..... (LARGE) due to greenhouse gases produced by human activities. The Intergovernmental Panel on Climate Change, which includes more than 1,300 scientists from the United States and other countries, forecasts a temperature rise of 2.5 to 10 degrees Fahrenheit over the next century.

According to the IPCC, the extent of climate change effects on individual regions will vary over time and with the ..... (ABLE) of different societal and ..... (ENVIRONMENT) systems to mitigate or adapt to change.

The IPCC predicts that increases in global mean temperature of less than 1.8 to 5.4 degrees Fahrenheit (1 to 3 degrees Celsius) above 1990 levels will produce ..... (BENEFIT) impacts in some regions and ..... (HARM) ones in others. Net annual costs will increase over time as global temperatures increase.

"Taken as a whole," the IPCC states, "the range of published evidence indicates that the net damage costs of climate change are likely to be ..... (SIGNIFICANCE) and to increase over time."

<https://climate.nasa.gov/effects/>

### Task 3 Listening: Controlling the weather?

A) Listen to the start of a radio interview (6.4). Why are scientists researching **ways to control** the weather?

B) Listen to the rest of the interview and answer the questions (6.5)

- What is cloud seeding?
- Why doesn't cloud seeding work well in drought areas?
- Why do people worry about using cloud seeding?
- What solution have scientists in Geneva found?

C) Look at the extract from the interview. Explain the difference between present perfect simple and continuous,

*'... it seems that one group of scientists have found a solution.'*

*'Professors... have been experimenting with using lasers to control the weather.'*

D) Complete the summary of the listening with the correct form of the verbs in brackets.

In recent years, there ..... (be) a noticeable increase in extreme weather events. Many scientists now agree that climate change ..... (cause) this increase. The science correspondent in the programme ..... (just finish) researching ways in which scientists around the world ..... (try) to artificially control or change weather patterns. These scientists ..... (explore) various techniques, including cloud seeding, over the past few years. However, many people are worried about putting chemicals into the atmosphere. Recently one team of scientists in Geneva ..... (discover) a way to use lasers to control the weather.

**Listen and check your answers (6.6).**

### Task 4 Global problems - Vocabulary

A) Choose the correct answer:

1. A volcano *erodes* / *erupts* / *erases*.
2. An epidemic *spreads* / *sprouts* / *sprays*.
3. War can *break up* / *break through* / *break out*.
4. A hurricane can *swerve* / *sweep* / *swipe* across an area.
5. An earthquake can *quake* / *rake* / *shake* a city.
6. People who have no food may *strive* / *starve* / *hunger* to death.
7. It was a very bad accident. There were 150 *causalities* / *casualties* / *casuals*.
8. Thousands of *refuses* / *refugees* / *rescuers* are living in emergency camps.
9. This area has *shown* / *struggled* / *seen* many droughts this century.
10. *Typhoid* / *Rabies* / *Measles* is an infectious disease spread by bacteria, especially in water or food, causing fever and severe pain in the bowels.

(adapted from McCarthy, M. & O'Dell, F. *Test Your English Vocabulary in Use*. CUP, 2001)



.....  
9. How do we generate electricity?  
.....

10. Why does access to energy matter?  
.....

11. Why should we improve our energy efficiency?  
.....

### Task 7 Exam practice – Gap fill

Complete the gaps with verbs in suitable forms. There is one verb you do not need to use.

*aid      convert      derive      heat      produce      take      transport      utilise*

Geothermal energy is (1) \_\_\_\_\_ by harnessing the Earth's natural geological heat source and (2) \_\_\_\_\_ it into a source that can (3) \_\_\_\_\_ a domestic property.

The Earth is normally around 55°F (12.8°C) and this heat can be (4) \_\_\_\_\_ by ground source heat pumps.

Certain geological characteristics (5) \_\_\_\_\_ the production of geothermal power such as geysers or hot underground magma deposits.

Iceland (6) \_\_\_\_\_ advantage of the country's unique geological make up to use geothermal power to great effect. Currently 17% of Iceland's total electricity production is (7) \_\_\_\_\_ from geothermal energy.

(source of the text: <http://www.cus.net/renewableenergy/subcats/geothermal/geothermal.html>)

## Task 8 PROS AND CONS OF WIND FARMS

**A) The use of wind turbines for the generation of green electricity is often an emotive subject and there are persuasive arguments for and against this form of renewable energy generation. Sort the arguments into those FOR and AGAINST.**

1. Land-based wind energy has the potential of covering six times the world's electricity consumption, or the world's total energy consumption. The energy consumption for production, installation, operation and decommission of a wind turbine is usually earned back within three months of operation.
2. Siting wind farms offshore raises issues such as dangers to navigation.
3. There is a perception that wind farms are noisy and are eyesores.
4. More recent wind farms have their turbines spaced further apart, due to the higher capacity of the individual wind turbines. They no longer have the cluttered look of the early wind farms.
5. It is possible to hold a conversation directly underneath a modern wind turbine without any difficulty whatever and without raising one's voice. The modern turbine is quieter than its predecessors owing to improvements in the blade design.
6. Studies show that the number of birds and bats killed by wind turbines is negligible when compared with other human activities such as traffic, hunting and high-rise buildings.
7. The construction of a large wind energy facility requires straight flat roads, a large hole filled with tons of steel and concrete to secure each giant assembly, clearing of trees in wooded areas and a transformer and power lines for each turbine.
8. An important complaint is that wind turbines kill many birds and bats. Siting generally takes into account bird flight patterns, but most paths of migration, particularly for birds that fly by night, are unknown.

## **B) Agreeing and Disagreeing**

**Make collocations by matching words from the left with words on the right.**

be	agree		into an argument	in complete agreement	
tend to	see	enter	agree	a compromise	sb's opinion
reach	share		sb's point	up to a point/ entirely / to disagree	

### C) Discussion

The government plans to build a wind farm near the coast and you are in a town meeting to discuss the issue. Each person should take one of the roles below and think about their position. Which arguments will you use to support your point and convince the others you are right?

- a) You are a wind farm owner who wants to build a new wind farm here.
- b) You are a government official whose task is to find ways to reduce oil consumption.
- c) You are an environmentalist who wants the government to act decisively to reduce pollution.
- d) You are a resident in the area where the government is proposing to build a wind farm. You love the peaceful atmosphere of the area and are worried about the decline of seabirds in your country.

(Task 5 adapted from Lane, S. *Instant Academic Skills*. CUP, 2011)

### Task 9 Exam practice - Passive

**Rewrite the sentences into passive.**

- 1. They demolished the building in only two days.  
The building .....
- 2. They are destroying large areas of forest every day.  
Large areas of forest .....
- 3. They will not announce the findings until next week.  
The findings .....
- 4. The city council authorities should ban traffic from the city centre.  
Traffic .....
- 5. She told the student to submit her essay by Friday.  
The student .....
- 6. Someone explained the procedure to me.  
The procedure .....
- 7. The committee has approved of the project.  
The project .....
- 8. They are developing a new drug to combat asthma in small children.  
A new drug .....
- 9. The surgeons operated on him for nearly 12 hours.  
He .....
- 10. They had elected a new president.  
A new president .....