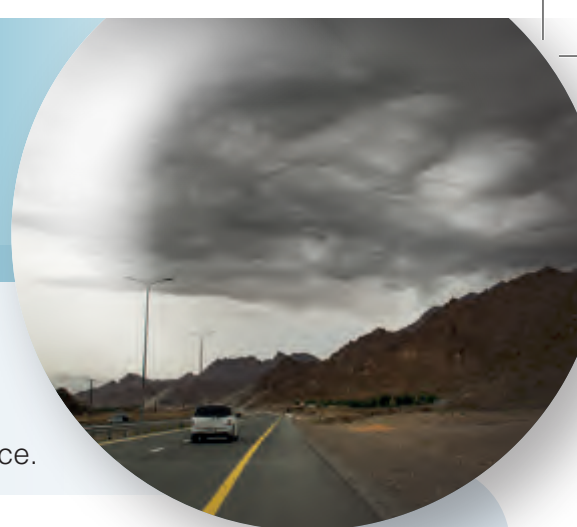


Unit 10 Our precious world

- **Topics** Climate change; What's ecology?; Green energy and Masdar City; Water is gold; Eco-friendly houses; Why recycle?
- **Use of English** *wish* and past perfect; defining relative pronouns; first conditionals; modals in the past; second conditionals; present passive voice.



Lessons 1–2 Extreme weather

- What is the most extreme weather you have ever experienced?
- What did you do?
- How did it make you feel?

Vocabulary

- 1 The following words are all connected to extreme weather. Match each word below to the definitions.

storm tsunami hurricane heat wave
global warming drought rainfall
thunder fog cloud

- 1 no rain for a long period.
- 2 the amount of rain.
- 3 a very loud noise from the sky.
- 4 when very small drops of water come together making it difficult to see.
- 5 several days when the weather is much hotter than normal.
- 6 very strong wind and heavy rain.
- 7 a very large wave caused by an earthquake under the sea.
- 8 very, very strong wind.
- 9 an increase in the earth's temperature due to the release of carbon dioxide (CO₂) into the atmosphere.
- 10 a grey or white shape in the sky made from very small drops of water.

Listening 42

- 2 You are going to listen to three speakers talking about extreme weather. Listen and decide what extreme weather condition each speaker is describing and where it takes place.

Situation 1

Weather condition:

Place:

Situation 2

Weather condition:

Place:

Situation 3

Weather condition:

Place:

- 3** Listen again to each speaker and write notes on what they say in your notebook. Answer these two questions in your notebook.

- 1 What happened?
- 2 How does the speaker feel?

Use of English

- 4** Look at this sentence from the listening activity.

I wish we had listened to the scientists.

Decide if the following questions are true or false:

- a The speaker is talking about the past.
- b The speaker thinks we listened to the scientists.
- c The speaker wants to change the situation.

Speaking

- 5** Look at the following situations. What do you think the speakers wishes are? Write notes, then tell you partner. The first one has been done for you.

- 1 I left my keys at home.
I wish I had remembered my keys.
- 2 I had to buy my mum a new vase.

- 3 I missed the football match.

- 4 I left my books at school.

- 5 I spilt your tea.

Pronunciation

- 6** Look at the wishes you wrote for the activity above. Try saying them with falling intonation.

I wish I had remembered my keys.

Listening strategy

When you are taking notes, it is a good idea to have a clear purpose for listening, that is, why are you listening to the speakers? As you listen, focus on your purpose and do not write down everything you hear.

Language tip

wish + past perfect is used to express a past situation we would like to change but can't. We can also use 'if only' instead of 'wish'.

Example: *If only we had listened to scientists. (I wish we had listened to the scientists).*

If only we hadn't cut down so many trees. (I wish we hadn't cut down so many trees.)

Speaking tip

Use falling intonation to say something definite or when you want to be very clear about something. Your voice should go down on the final stressed syllable of a phrase or group of words.



Lessons 3–4 Expo 2020

- What happens at trade fairs?
- Would you like to visit one?

Reading 21st

- 1 Read the text below and decide which of the questions (A, B, C or D) it answers.

- A What are some of the design features for Expo 2020?
- B What will Expo 2020 be about?
- C Who is attending Expo 2020?
- D How can visitors hide from the sun?



A celebration of ecology

The design for the main building of the Dubai 2020 Expo has been revealed during Sustainability Week in Abu Dhabi. During the week long event, delegates were able to look at details and images for the main pavilion. The pavilion, a large and impressive building that will form the centrepiece of the forthcoming trade fair, is said to represent some of the most innovative designs and technologies.

The main function of the building is to demonstrate how new science and design can work together to help us to protect our planet. The building will include exhibitions and performances showing how effective alternative energy sources are. These energy sources include solar energy, the use of water power and materials from natural resources.

The centre of the building is 8000 sq metres and will also have an auditorium where visitors will

have the opportunity to listen and take part in discussions focusing on global challenges and solutions. As almost 200 countries are hoping to take part in the event, visitors will be given the chance to meet, discuss and exchange ideas with people from almost every corner of the world. The centre part of the pavilion will also house a courtyard and a reservoir. To ensure every aspect of the pavilion promotes sustainability, the roof will not only protect visitors from the sun, but will also collect solar energy to power the venue.

A few other smaller buildings, named 'energy trees', will be built around the central building. These trees have a dual purpose: they will be able to take energy from the sun to add power to the pavilion and they will also take water from the atmosphere for use during the event. The design of the pavilion originated from ideas present in the natural sciences.

As Expo 2020 will take place during a time when the sun could affect those from cooler climates, there will be places where visitors can hide from the sun and move around Expo 2020 without getting burnt. These shaded enclaves and walkways are based on local wadi riverbeds and will attract visitors by creating natural sights and smells within the fair.

To ensure that visitors cannot miss the pavilion, it will be located right at the centre of the Expo's 2km² site. Other countries attending the event will contribute smaller pavilions demonstrating that Expo 2020 is clearly a global event.

A delegate who was attending Sustainability Week claimed that the designs were really impressive, saying 'I think the pavilion's very low carbon footprint will send a clear message about the importance of the natural world, ecology and the use of sustainable technology'.

- 2 Read the text again and complete the following sentences with words from the text. Remember to write the answers in your notebook.

- 1 Delegates at Sustainability Week were shown ____
- 2 The pavillion will show ____
- 3 The auditorium will give visitors the chance to ____
- 4 The pavilion's roof will be used to ____
- 5 The design of the pavilion originated from ____
- 6 Visitors will find the pavillion easily because ____

Reading strategy

Before reading a text to look for key information, carefully read the questions and consider what information you are looking for. The words and phrases in the questions may be phrased slightly differently to those in the text.

Speaking

- 3 Answer these questions with a partner.

- 1 Would you like to attend Expo 2020? Why/why not?
- 2 What do you think of the design for the pavilion?

Use of English

- 4 Read the text again and find examples of relative clauses which use *that*, *who*, *where* and *when*. Look at the sentences that use the words above and answer the questions below.

- 1 What is the purpose of each relative clause (essential information or a definition)?
- 2 When do we use
 a *that* ____ b *who* ____ c *where* ____ d *when* ____
- 3 What kind of words follow...
 i which/that who?
 a verb b noun/prounn
 ii where/when?
 a verb b noun/pronoun

Use of English

We use **relative pronouns** to specify or define the nouns that come before them. They can be used to join two clauses.

For example:

Jan is my friend. She lives in England.
Jan is my friend who lives in England.

In this example, *who lives in England* is the **relative clause**.

Note that '*which*' can replace '*that*'.

A defining relative clause gives us a definition.

Samia is the person who always helps me.

Writing

- 5 You are going to write a short essay about sustainability. Before you do, discuss ideas with a partner. Now write a short essay.

How can sustainable designs help to protect the environment from human impact?

Lessons 5–6 Green energy and Masdar City

- What is green energy?
- Why do you think it is important worldwide?
- Is green energy common in the UAE?

Listening

- 1 You are going to listen to an interview with an architect who has worked in Masdar City. As you listen, decide which of the following problems the speaker mentions.
 - 1 Rapid urbanisation.
 - 2 Keeping people warm in winter.
 - 3 Keeping people cool in summer.
 - 4 Reducing the amount of wind.
 - 5 Burning fossil fuels.
 - 6 Having no cooperation between companies.
 - 7 Creating a modern 'green' city.
 - 8 Working with companies throughout the world.
 - 9 Having too many citizens.
 - 10 Having something to pass on to future generations.
- 2 Listen again. The speaker outlines several environmental problems that Masdar City is attempting to solve. As you listen, write notes below what the solution to each problem is. The first has been done for you.



Rapid urbanisation → Investing smartly to reduce energy, water and waste

Use of English

- 3** These extracts from the listening activity use the first conditional. We use the first conditional to present possible solutions to problems. What do you notice about the position of the comma?

If we use solar power, we will be able to generate clean and fuel-efficient energy.

Or

As long as we create the newest solutions in terms of energy and sustainability, we will share these ideas with companies throughout the city.

- 4** Match clauses 1–3 to clauses a–c and use a suitable conjunction (*unless, as long as, provided that*) to link them. More than one answer may be correct.

- 1** We will solve all the world's energy problems ...
2 We can use the power of the sun as energy ...
3 Your fuel bill will be very expensive ...

- a** ... we use solar panels.
b ... you stop wasting so much energy.
c ... we all work together.

Use of English

The first conditional is usually introduced with 'if', but other conjunctions can be used instead.

- unless = if not

Unless we use solar power, we won't be able to generate clean and fuel-efficient energy.

- as long as = suggests that both actions take place at the same time

As long as we use solar power, we will be able to generate clean and fuel-efficient energy.

- provided (that) or providing (that) = only if

Provided that we use solar power, we will be able to generate clean and fuel-efficient energy.

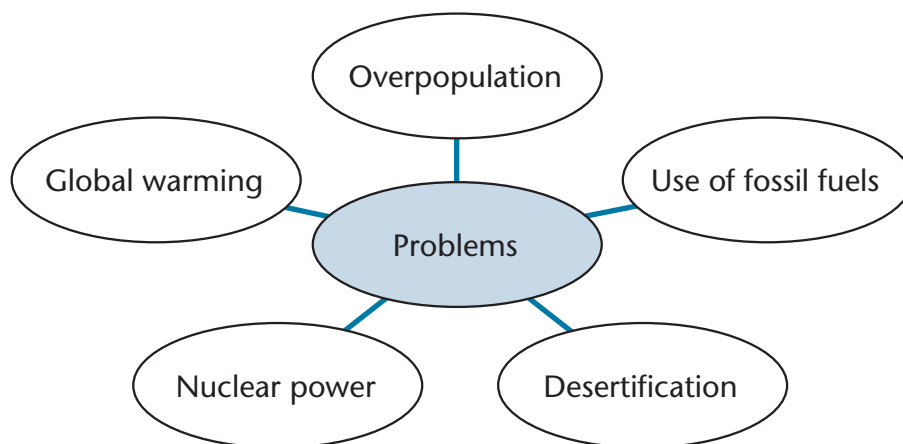
Speaking

- 5** Consider the following problems facing the Earth. Think about what we could do to deal with each problem. Try to use a mixture of conjunctions to present your ideas. Tell your partner.

For example: Natural resources

Unless we change our habits now, the earth will run out of natural resources.

Provided we start using green energy, we will keep our natural resources.



Lessons 7–8 Practise and prepare

- Look at the pictures. What do they show?



Speaking

- Which of the things below do you think are the main causes of global warming?
Compare your ideas with a partner.

industry power stations agriculture homes
cutting down forests transport producing oil

- Do you do any of these things to help the environment?

- Use energy-saving lightbulbs
- Use renewable energy
- Use public transport
- Buy local products

Listening

- Listen to Samya talking about an environmental problem.

- What two environmental problems does she talk about?
- What things from Activity 2 does Samya do to help reduce the effect of these problems?

4 Listen again and complete each answer with no more than three words.

Environmental problem	1. The amount of _____ .
Reasons	2. Burning fossils fuels such as _____ . 3. _____ from vehicles.
Effects	4. People breathe in chemicals which causes _____ . 5. _____ , which is a major threat to our planet.
How we can help to solve the problem	6. Use more _____ . 7. Try to _____ energy.
What Samya does	8. Travels by _____ . 9. Uses _____ .

Speaking

5 In pairs, think of an environmental issue facing the UAE and make some notes about it. Discuss the following:

- What it is.
- The reason(s) for it.
- The effects of it.
- What we can do to help.
- How you try to protect the environment.

6 Work in pairs. Take it in turns to talk about the topic below. Use the notes you made in Activity 5 to help you.

Describe how you try to help the environment.

You should mention:

- what you think the biggest environmental problem is
- what the reasons are for it
- what the effects of it are
- how we can help to solve the problem

Lessons 9–10 **Water is gold**

- Are you generally careful with the amount of water you use?
- How can we save water in the home?

Listening

- 1 Listen to Abdullah, John and Camilla discussing the use of water. Which person:
 - a tries to save water?
 - b thinks they use too much water?
 - c is concerned about how water is being preserved in their country?
- 2 Listen again and decide if the following statements are true (T), false (F) or not given (NG).

Abdullah thinks that

- 1 desalination has helped his country to develop.
- 2 desalination is the best solution to water shortages.

John thinks that

- 3 it's not important to save water.
- 4 using less water would have a positive impact on the amount of money he spends.

Camilla thinks that

- 5 she uses water differently to most people in her country.
- 6 government water transportation projects are a good thing.

Are any of the speaker's attitudes towards water similar to your own?



Use of English

- 3 Read the following statements taken from the recordings.
- i Without it, this country **wouldn't** have **developed** the way it has.
 - ii I know I **should** really **have turned** it off.
 - iii ... this situation **might have been** avoided.
- 1 Are the speakers talking about the past, present or future?
- 2 Which statement ...
- a talks about an impossible past situation?
 - b talks about past possibility?
 - c talks about a past regret?
- 3 Find the modal verbs in the examples above. What word are they followed by?



Speaking 21st

- 4 Look at the audioscript of the listening activity. Write down all the expressions that the speakers use to give opinions.
- 5 You are going to have a debate on the following statement:

Governments should restrict the use of water.

Group A: you agree with the statement.

Group B: you disagree with the statement.

Come up with some arguments in your group to support the stance you have been assigned. Remember to provide evidence or examples to support your arguments when possible.

Speaking tip

Before having a debate on a topic, try to predict what counter-arguments the other group might present and how you could respond to them. During the debate, remember to listen to the points the other person makes and be prepared to respond.

With a partner from the other group, have the debate. You must defend your position and try to persuade your partner that your point of view is correct. When presenting your arguments, try to use some of the expressions for giving opinions that you heard in the recording.

Lessons 11–12 **Green cars**

- Do you think the way we use cars can affect the environment? Why/Why not?
- What do you know about 'green cars'?

Reading

- 1** Read the text about electric cars and decide whether the statements are true (T), false (F) or not given (NG).

- 1 The only benefit of EVs is that they don't emit toxic gases.
- 2 Not everyone thinks EVs are a good thing.
- 3 EVs are more expensive to buy than traditional cars.
- 4 EV owners can charge their cars for free anywhere in Dubai.

Electric cars are not new on the roads and we've all heard about the benefits of 'green cars', such as cutting greenhouse gases. In fact, electric vehicles, or EVs, are 100 per cent eco-friendly as they run on electrically powered engines. They don't emit toxic gases or smoke, so they have a low impact on the environment because they run on clean sustainable energy. They're even better than hybrid cars, which typically consume petrol or diesel fuel and therefore produce harmful emissions. Also, because EVs are much quieter than regular cars, they greatly reduce noise pollution.

Despite these advantages, some people still have reservations about EVs.

- ¹⁰ For example, they may argue that there aren't enough electric fuelling stations, so there's a real risk of running out of charge if you're on a long trip. Other arguments against the use of EVs are the high cost of electricity and their long recharge time. If electricity was cheaper and fuelling stations easier to find, more people would consider buying EVs. Also, since most of the ¹⁵ electric cars on today's market are small and only seat two people, families may not find them suitable for their needs.

But now local authorities in Dubai are offering interesting incentives to EV owners in an effort to make our roads greener. This is part of a larger plan, the Dubai Clean Energy Strategy 2050, which aims to make Dubai the place with the lowest carbon footprint in the world by 2050.

- ²⁰ The good news for Dubai EV owners is that:

- they can charge their vehicle for free at Dewa-approved stations until 2019
- they have access to free designated green parking in Dubai
- they get free electric vehicle registration and renewal fees
- they receive a free Salik tag for their car and a licence plate sticker identifying it as an electric vehicle.

- ²⁵ As one government official said, 'If we all drove electric cars, we'd live in clean, quiet cities.' So are you ready to buy an EV and join the 'green movement'?

Source : <http://gulfnews.com/news/uae/transport/electric-cars-in-dubai-come-with-these-four-free-perks-1.2095098>



2 Look at the text again. What do the pronouns refer to?

- 1 they (line 4)
- 2 they (line 10)
- 3 their (line 13)
- 4 this (line 18)
- 5 it (line 24)

Use of English

3 Look at this sentence from the text and answer the questions below. One government official said

'If we all drove electric cars, we'd live in clean, quiet cities.'

- a Do we all drive electric cars?
- b Is it likely that we will all drive electric cars in the future?
- c How do we pronounce the sentence?
- d How can we make the sentence negative?
- e How can we turn the sentence into a question?

Speaking

4 Imagine you could design a new EV. What features would it have? Think of at least three sentences and then tell your partner.

Writing 21st

5 Imagine you are going to write an essay discussing the advantages and disadvantages of electric cars. Write an introduction to the essay.

Reading strategy

Pronouns (for example, *it*, *this*, *these*) are used to avoid repetition and to link ideas to make a text cohesive. Identifying what these pronouns refer to helps you to understand a text.

Use of English

We use the second conditional to talk about imaginary or hypothetical present or future situations. We form the second conditional like this:

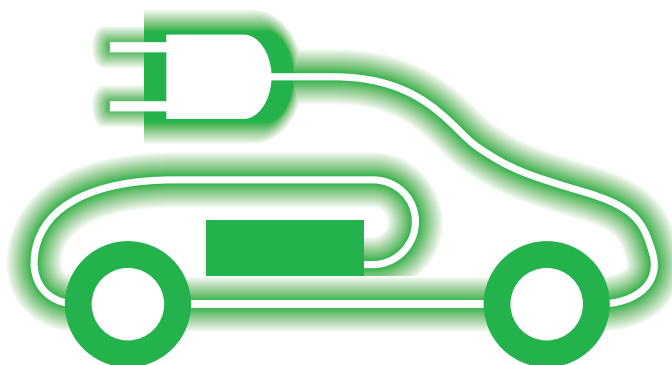
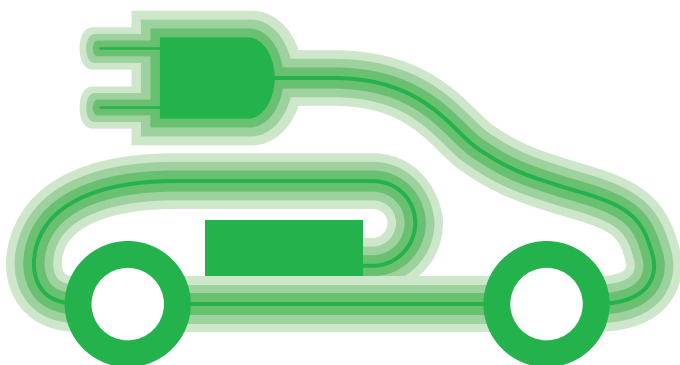
if + past simple + would + base form.

For example:

If electricity was cheaper and fuelling stations easier to find available, more people would consider buying EVs.

Writing tip

Remember to use forwards and backwards referencing to avoid repetition and make your writing cohesive.



Lessons 13–14 **Endangered animals of the UAE**

- Do you know any endangered animals in the UAE?
- Why are these animals in danger?

Reading

- 1** You are going to read an article about endangered animals of the UAE. Skim read the text and match one of the headings below with each paragraph.

- A** Why should we care?
- B** Too beautiful to live.
- C** How you can help.
- D** Overview of the problem and aim of the article.
- E** From life in the wild to domestic animal.

1

The UAE is home to a range of beautiful animals, but many of them are quickly disappearing and are nearly the last of their kind in the world. In an effort to protect different endangered species, the country has created a number of ways to raise people's awareness to the importance of conservation. In this article, our main objective is to consider some of these vulnerable creatures and what you can do to stop them from becoming extinct.

2

Hawksbill turtles are found in over 60 countries including the UAE. The turtles lay their nests on our beaches, and especially on Saadiyat Island in Abu Dhabi. In the past century, the worldwide population has decreased by around 80 per cent and unfortunately it is believed that there are only approximately 8000 adult nesting females left in the world. Sadly, one of the reasons why the Hawksbill turtles are disappearing is that they are hunted for their magnificent brown and yellow shells to make decorative items, such as jewellery and ornaments.



3

The smallest of all 15 existing species, in the past the Arabian leopards could be found all over Arabian Peninsula. However, since the beginning of the 19th century, the leopards' population has decreased by around 90 per cent in Saudi Arabia and it is now believed that there are 250 or fewer of these leopards in the wild, and they are disappearing fast. The biggest threat to this animal is the loss of its natural habitat and prey, caused by unregulated hunting. Some leopards are even captured live and sold at high prices as pets.

4

Unfortunately not everyone appreciates the cultural importance and touristic value of these animals. For example, many people visit our beaches every year to study the Hawksbill turtles, especially during nesting season. But in addition to attracting tourists, these animals play an important role in preserving the coral reefs by eating sponges which would otherwise prevent the corals from growing. In fact, research shows that one turtle can consume over 454 kilograms of sponges per year thereby significantly protecting the reefs. It must be remembered that coral reefs are home to 25 per cent of all marine species, so if reefs should disappear, so would many fish and underwater plants.

5

The good news is there are many great initiatives throughout the country to help preserve these endangered species. However, even the best efforts will fail without people's support. For example, you can join the Marine Turtle Conservation Project, launched in 2010 by the Emirates Wildlife Society in association with the World Wildlife Foundation (EWS-WWF), and adopt a turtle. You can also donate small sums of money to shops, hotels and dive centres who collect contributions for the turtle conservation campaign. Most of all you can learn more about endangered species and what's happening to and for them. For example, the Sharjah Breeding Centre for Endangered Arabian Wildlife (BCEAW) has successfully bred 35 Arabian leopards since 1998. The centre also offers workshops and activities to inform everyone of the importance of protecting the leopard's natural habitat and encourage people to take action. The bottom line is, if we all stay informed and show we care, we can play the biggest role in preserving and maintaining a vital part of our living natural history.

Source: <http://gulfnews.com/your-say/your-reports/how-you-can-help-save-the-uae-s-endangered-species-1.1430372>


- 2 Scan the text quickly and find the numbers in the box. What do they refer to?

60 80% 8000 90% 250 454 2010 1998

- 3 Complete the notes using no more than two words from the text.

- 1 The UAE tries to _____ of the need to protect our endangered animals. (2 words)
- 2 The Hawksbill turtles are _____ for their shells. (1 word)
- 3 The Arabian leopard cannot find prey because of _____. (2 words)
- 4 These animals are an important part of our culture but they are also a _____. (2 words)
- 5 It's important to _____ these species and stop them from becoming extinct. (1 word)

Listening 21st

- 4  46 Listen to some people talking about ways to protect endangered animals.

- a What do you think some solutions to preserving these animals could be?
- b Listen to some people talking about ways to protect endangered animals. Note down the suggestions.
- c Are any of these ideas the same as yours?

Speaking

- 5 Do you or anyone you know do any of the things mentioned in the recording? In pairs, think of four more tips to protect endangered animals.

Lesson 15 Review

Vocabulary

- 1 Put the vocabulary below from Unit 10 into the correct part of the table. Some words may fall into more than one category.

energy-efficient sustainable drought
natural sciences hurricane insulation
waste tap conservation fossil fuels
basin natural resources tsunami
carbon dioxide landfill desalination
renewable solar panel global warming

Weather	Ecology	Energy	Water	Recycling	Eco-houses

Reading

- 2 You are going to read a text about changes to the Earth.
- a Read the text below quickly and decide what it is about.

There is now a lot of scientific evidence that the earth is getting warmer and that _____⁽¹⁾ is taking place. This represents a major threat to life on earth and is believed to be the biggest issue facing our planet nowadays. However, there are various measures that governments and individuals could take to tackle climate change. For example, governments could introduce laws to limit the _____⁽²⁾ emissions that lead to global warming. They could also reduce our dependence on _____⁽³⁾ and invest in _____⁽⁴⁾ energy production from _____⁽⁵⁾, wind or water power. As individuals, we should also try to limit our contribution to climate change. For example, we can switch to energy companies that use renewable energy. We can also become more _____⁽⁶⁾ by flying less and travelling by bicycle and public transport.

- b Complete the gaps in the text with a suitable word from Activity 1.

Use of English

- 3 Correct the mistakes in the following sentences. Say what the mistake is in each one.
- 1 A scientist is someone which works in one of the sciences.
 - 2 Provided we will invest in sustainable technologies, we will reduce energy consumption.
 - 3 I wish eco-houses existed 50 years ago.
 - 4 If only firms and companies previously invested in green technologies.
 - 5 I will restrict the use of water if I were Prime Minister.
 - 6 I should pay more attention to environmental issues when I was younger.

Speaking

- 4 Look at the topics and brainstorm some ideas to help prepare for a debate.
- Every country should stop using oil.
 - Global warming is not an important problem.
 - Extreme weather is exciting.
 - Governments should restrict the use of water.
 - Recycling is not necessary.
 - In 100 years' time, everyone will live in an eco-house.

Speaking tip

Remember to use expressions for giving your opinion and agreeing and disagreeing.

Lessons 16–17 **Project: Action Now!**

- What ecological threats are currently facing the world?

Research and note-taking ^{21st}

- 1** You are going to research a serious ecological threat facing the world.

Example topics:

urbanisation
industrial development
tourism
pollution
waste management
water shortages

- In your group, decide which ecological threat to focus on.
 - Use the Internet or visit the school library, and each find an article on your chosen topic.
 - Each member of the group should read their article alone.
 - As you read, make some notes. Try to answer the following questions:
 - What is the problem?
 - Why is it a problem?
 - What information is given about the problem?
- 2** Re-form your groups and compare your notes. Answer these questions:
 - Do you have the same information?
 - What do you think is the most important information?
 - Can you suggest any solutions to the problem? Or how can we avoid the problem?

Project Planning

- 3** You are going to prepare a campaign to raise awareness of your chosen ecological threat.

The campaign should:

- explain what the problem is
- suggest ways in which the problem can be solved or avoided
- persuade the class to adopt your solutions(s).

In your groups, draw a mind map to plan your campaign and record your ideas. Remember to:

- state the problem clearly
- explain why it is a problem
- give any other relevant information
- suggest possible solutions (from your research and your ideas)
- suggest possible ways to avoid the situation (from your research and your ideas).



Useful Language

- 4 Before you deliver your campaign, put the following expressions in the table below (some phrases have already been added).

Today we want to consider ... , This is done by ... , As long as/provided/unless we ... ,
 Today, we would like to discuss ... , Don't you think it would be better to ... ,
 The subject/purpose of this campaign is ... , If we don't do this, then ... ,
 This is something which/that/when/where ... , We can call this ... , We shouldn't have ...

outlining	clarifying	persuading
<i>Our topic today is ...</i>		<i>My advice would be to ...</i>

Add any other phrases you may know.

Preparation

- 5 Using your notes and ideas, work in your groups to prepare how you will deliver your campaign. It should last for approximately five minutes. Remember that your aim is to persuade the class to adopt your solution(s).

Structure your campaign like this:

- 1 Say what the problem is.
- 2 Explain why it is a problem.
- 3 Suggest possible solutions or ways to avoid the problem.
- 4 Persuade your listeners to adopt your solutions or change their behaviour.

Decide who will deliver each part of the campaign and ensure everyone has a chance to speak. Remember to use some of the useful language from Activity 4.

Speaking

- 6 Deliver your awareness raising campaign. Try to persuade the class to adopt your solutions. While you listen to each campaign, answer the following questions.

Was the problem clear?

What solutions were made?

Which campaign did you find the most persuasive? Why?