

Vocabulary

3 Match these 'energy' words **a–e** with their meanings **1–5**. You may use the dictionary or the glossary at the end of the book.

- | | | | |
|---------------|---|---|--|
| a finite | 2 | 1 | the process by which impurities are removed from a substance |
| b contribute | 5 | 2 | limited |
| c refining | 1 | 3 | in natural or raw form; unprocessed |
| d crude | 3 | 4 | natural energy formed over a long period of time |
| e fossil fuel | 4 | 5 | aid in causing something to occur |

Listen

4 (7.1) You are going to hear part of a radio programme about world energy. Which types of energy do the speakers mention?

coal, oil, natural gas, hydro-electric power, wind power, wave power, solarenergy, wood (vegetation)

Check your understanding

5 (7.1) Listen again and note the correct numbers for the gaps in these sentences.

- Coal and oil will last for 60 years. Natural gas will last for 220 years.
- The Aswan Dam in Egypt produces over 10 billion kilowatts of electricity every year.
- The Rogun hydro-electric dam in Tajikistan is 355 metres high.
- The world's first wind-powered generator was built in the year 1890.
- In parts of Africa, women walk over 10 kilometres a day to find wood.
- The average American uses 340 times as much energy as an Ethiopian.

6 Read the article again.

a Are these statements True (T) or False (F)? Justify your answer.

- 1 Reserves of coal and oil will last longer than reserves of natural gas.

False: Reserves of natural gas will last for 220 years and reserves of coal and oil will only last for 60 years.

- 2 The world's largest oilfield is in Saudi Arabia.

True: The Al-Ghawar oilfield in Saudi Arabia is the biggest in the world.

- 3 Wind, waves and the sun produce only five per cent of the world's energy needs.

False: Wind, waves and the sun produce only 0.5 per cent of the world's energy needs.

- 4 In some places, plants provide most of the energy people use.

True: In some poor countries plants provide over 90% of all the fuel.

b (7.1) Compare your answers with those of a partner, then listen again and check your answers.

Think and speak (predicting; discussing advantages and disadvantages)

7 Discuss these questions in pairs or small groups.

- What are some possible consequences if the world's industry reduces its energy use?
- What are the disadvantages of natural sources of energy like wind power, wave power and solar energy? Discuss.

Words to remember

crude oil, entirely, finite, fossil fuel, fractional distillation, polymer, refining



• If sentences: conditional Grammar reference page 131

1)a) 1-continue (to use): present simple; will last: future simple. This is a first conditional sentence.

2-walk: present simple; need: present simple. This is a general conditional sentence.

3-were: past simple; would last: past. This is a second conditional sentence.

1 There are three different examples of **if** sentences (conditionals) in the radio discussion.

a Find the verbs in these examples.

- 1 If we continue to use coal at today's speed, it will last for 60 years.
- 2 Women walk over 10 km if they need wood for fuel.
- 3 If we were more careful, our energy would last longer.

b Choose one of the words below to describe each of the sentences. **Sentence 1** likely
Sentence 2 always
Sentence 3 unlikely

always likely unlikely

• General conditional 2)a- Ask the students to explain how we know these answers (because the sentences are in the present simple, which can describe a habit or routine.)

2 a Read this short conversation, then answer questions 1 and 2 below.

- A** What do you do if you have no money? **B** If I have no money, I ask my dad.
- 1 Have the speakers been in a situation where they have no money? **Yes, they have.**
 - 2 How often has this happened to them? Once, or more than once? **More than once.**

b Complete these sentences so that they are true for you. **Students' own answers**
If I feel hungry, I
If I can't sleep at night, I

c Make conversations in pairs. Take turns to ask the first question. **Students' own answers**
A What do you do if you feel hungry? **B** I look in the kitchen.

• First conditional

3 a Read this short conversation, then answer questions 1 and 2 below.

- A** What will we do if our car breaks down? **B** If it breaks down, we'll try to fix it.
- 1 Are the speakers talking about past, present or future time? **the future**
 - 2 Do the speakers think a breakdown is likely or unlikely? **a breakdown is likely**

b Complete these sentences as if you were speaking. **Students' own answers**
1 policeman (to driver) If you drive too fast,
2 coach (to footballer) If you don't train more often,

c Complete this sentence in four different ways. **Students' own answers**

3)a-Ask the students to explain how we know these answers (because the sentences are in the first conditional, which is used to talk about future events that are likely to happen.)

.....
If I accept the job,

.....
If I accept the job,

.....
If I accept the job,

.....



• **Second conditional**

4 a Read this short conversation. Are **A** and **B** talking about past, present or future time? **Future time**

- A** If we use our cars less, we will create less pollution.
B Crude oil separates into composite parts if it is heated at high temperatures.
A If I owned a power station, I would reduce energy costs.

- b** Is it **likely** or **unlikely** that the oil will run out tomorrow? **unlikely**
c Complete these sentences by adding the correct form of the verbs in brackets.
1 If we **found** (find) a way of using water instead of petrol, the cost of motoring **would fall** (fall).
2 If the cost of motoring **fell** (fall), everyone **would use** (use) their cars more often.
3 If everyone **used** (use) their cars more often, the roads **would be** (be) much more crowded.
d Work in pairs. Discuss what would happen if sea levels around the world rose by two metres next week. **Students' own answers**

Vocabulary Strong and heavy

1 Complete the sentences with one of these phrases.

- strong lights heavy work heavy traffic strong coffee*
heavy fall strong smell heavy fighting strong wind

- 1** Some people don't drink **strong coffee** at night because it stops them from sleeping.
2 It took him two hours to drive there because of the **heavy traffic**.
3 To play football at night, you need very **strong light**.
4 The boat sailed quickly because of the **strong wind**.
5 My uncle broke his leg when he suffered a **heavy fall**.
6 There is a **strong smell** of curry coming from the kitchen.
7 The newspaper reports **heavy fighting** in central Africa. **heavy work**.
8 Building houses is .



Words to remember

- actually, appliance, breakdown, generate, last, motoring, strong

Word families

2 Work in pairs. Complete this text with one of the words in italics.

The British coal **(1) industry / industrial** employs just over 9,000 people. In 2002/03, total British **(2) product / production** was 28.9 million tonnes. About a third of this coal is used to **(3) generate / generator** electricity. This means that when people use **(4) electricity / electrical** appliances in their homes, they are actually **(5) useful / using** coal.

Pronunciation

3 (7.2) Listen and repeat these words. Notice how the two words are linked together.

- a** If you ... **c** If we ... **e** If oil ...
b If I ... **d** If the ... **f** If Faisal ...

4 (7.3) Listen and repeat the same words in the following sentences.

Speaking Expressing opinions

1 You are going to discuss this statement in groups of five.

“To help save the world’s energy resources, the government should increase the price of petrol by 100%.”

Introduction and preparation

- Each group chooses one of the roles **A–E**.
- Read your role card and decide what you think about the statement.

A – Petrol station owner

- You own a petrol station.
- Most of your income is from selling petrol to local people and companies.

C – Car driver

- You use your car every day: for work, for shopping and to visit friends.
- You are self-employed and for most of the week you have to travel and consult different companies.

B – Someone who wants to protect nature

- You think there is too much congestion on the roads and that the smog is a danger to nature and to people’s well-being.
- You go everywhere by public transport or on foot and you suffer from asthma.

D – Teenage cyclist

- You are too young to drive, so you travel everywhere by bicycle.
- Your journey to work is hazardous because the traffic is very heavy in the mornings. Cars have knocked you off your bike twice.

E – Student

- At the moment you walk everywhere but you’d like to procure a car when you leave university and get a job.
- You are worried about the environment.

Role-play

2 Work in groups of five – A, B, C, D, E.

- First, each ‘character’ should say what he / she thinks about the statement in exercise 1. Say why you are pleased or worried by the idea. How does the language differ? Use some of the expressions from the *Useful Language* box below.
- When everyone has expressed their opinions, have a general discussion.
- Finally, organise a vote to find out whether your group agrees or disagrees with the statement.

USEFUL LANGUAGE

Saying why one is worried

I’m really worried about (the idea) because ...
I’m afraid X would (happen) if they increased the price of petrol.

Saying why one is pleased

I’m really pleased ...
I think it’s a great idea.
It sounds good to me.

Quote “Environmental protection doesn’t happen in a vacuum. You can’t separate the impact on the environment from the impact on our families and communities.”

Jim Clyburn

Writing A magazine article

Read and analyse

٥٧ ٥١٦
You are going to write an article for a school magazine suggesting practical ways in which we could all save energy.

- 1** Read the magazine article below and answer these questions:
- a What do you know about the writer and the readers of the article? **they drive cars**
 - b How does the writer start and finish the article? **with questions for the reader**
 - c Is the style formal or informal? **informal**
 - d What is the main purpose of the article? **to persuade the readers to use their cars less often**

DO YOU REALLY HAVE TO DRIVE?

When you're in your car, do you ever think, 'Do I have to drive?' or 'Could I travel by bus?' Recently, I've asked myself these questions more often. Sometimes I have good answers, but not always.

When I drive to work, I'm the only person in my car. Most other cars on the road also carry only one person. We're all going to the same place in our own cars. What a waste of energy and money! I don't enjoy my journey because of all the traffic, but I'm more worried about air pollution and the energy which motorists

like me are squandering. So here are my suggestions for diminishing the amount of energy we use in our cars. Firstly, we could share cars with other people who are going to the same place as us. Secondly, we could use alternative modes of transportation. And finally, if you have a big car, you could replace it with a smaller one. If we don't do something to save energy, we'll end up with irreversible environmental problems. What are YOU going to do to prevent this?



- 2** Compare your answers to questions 1a–d in pairs.

Plan your article

- 3 a** Brainstorm ideas in groups. Collect them in a graphic organiser using the following headings:

- ▶ Think about electricity: lights, air-conditioning, travelling, etc.
- ▶ How could you save some energy at home?
- ▶ What would be a suitable title for the article?
- ▶ How could you start and finish your article?

- b** Write a plan for an article with four paragraphs.
- 1** Introduce the topic.
 - 2** State the problem.
 - 3** Make your suggestions.
 - 4** Conclude the article.



Words to remember

asthma, congestion, consult, diminish, end up with, government, hazardous, irreversible, motorist, procure, recently, self-employed, smog, squander, waste



Write and check

- 4 a** Write your article in about 150–170 words, using your plan.
b Now check your article and exchange it with a partner.



USEFUL LANGUAGE

Introducing a topic with a question
Do / Have you ever ...?
What are you doing to ...? / What could you do ...?

Giving warnings
If we don't do ..., ... will happen.
It sounds good to me.

Making suggestions
We could ... (share cars).
If you have a big car you could ... (replace it).