

The Great Socialist People's Libyan Arab Jamahiriya  
General People's Committee For Education and Scientific Research  
Curricula and Educational Research Centre

# ENGLISH FOR LIBYA

Secondary 3  
Engineering

**Course Book**

D'Arcy Adrian-Vallance and Chris Gough

1379-1378 و.ر  
2011-2010 مسيحي

English for Libya, Secondary 3 Engineering Specialization, Course Book

Materials development by  
Garnet Publishing Ltd., 8 Southern Court, South Street,  
Reading RG1 4QS, UK

© General People's Committee For Education and Scientific Research  
The Great Socialist People's Libyan Arab Jamahiriya

First published 2008

All rights reserved. No part of this publication may be reproduced,  
stored in a retrieval system, or transmitted in any form or by any means,  
electronic, mechanical, photocopying, recording, or otherwise, without  
the prior written permission of the C.E.R.C(G.S.P.L.A.J)

#### Acknowledgements

Garnet Publishing Ltd. and the authors wish to thank the following  
for permission to reproduce copyright material:

#### Photography:

Clipart.com, Corbis, Digital Vision, Getty Images, Ann Jousiffe,  
Quadrant, Stockbyte, Salamander Picture Library

#### Illustrators:

Joan Corlass, John Crawford Fraser, HL Studios, Doug Nash,  
Oxford designers & illustrators, Sean Wilkinson

#### Design and reprographics:

Hart McLeod

# Contents

<b>Unit 1</b>	Puzzles and mysteries	page 6
<b>Unit 2</b>	Weather and climate	page 18
<b>Unit 3</b>	Facts and figures	page 30
<b>Unit 4</b>	Great failures	page 42
<b>Unit 5</b>	Literature	page 54
<b>Unit 6</b>	The world of sport	page 66
<b>Unit 7</b>	Health and first aid	page 78
<b>Unit 8</b>	English in the world	page 90

# Course Summary

	Reading	Vocabulary	Grammar
	Two lessons	Three lessons	
<b>Unit 1</b> Puzzles and mysteries	The mystery of the Nazca lines (Predicting content).	Certainty and uncertainty.	Subject and object questions. Talking about the past with <i>must</i> , <i>may</i> , <i>might</i> and <i>can't</i> .
<b>Unit 2</b> Weather and climate	Hot and cold (Taking notes).	Adjective + preposition.	Adjectives with <i>so</i> , <i>enough</i> and <i>too</i> . Order of adjectives.
<b>Unit 3</b> Facts and figures	Just a minute! (Scanning for specific information).	<i>Until</i> , <i>by</i> and future time phrases.	The future perfect and the future continuous. The infinitive with future meaning.
<b>Unit 4</b> Great failures	Great failures (Reading to retell information).	Verb collocations.	How things could be different. The future in the past.
<b>Unit 5</b> Literature	Two novel extracts (Identifying styles of writing).	Nouns and adjectives ending with <i>-ing</i> .	Adjectives, noun and question words followed by the infinitive. <i>-ing</i> or infinitive?
<b>Unit 6</b> The world of sport	Fair play? (Identifying topic sentences).	Connecting words.	Verbs for reporting speech. Time phrases and questions in reported speech.
<b>Unit 7</b> Health and first aid	The World Health Organization (Reading for specific information).	The body and first aid.	The passive – review. The passive – continuous tenses and <i>have</i> + object + past participle.
<b>Unit 8</b> English in the world	English in the world (Understanding gist).	Review.	Review – sentence patterns. Review – the passive and conditionals.

Speaking	Writing	Listening	Specialization
<b>One lesson</b>	<b>One lesson</b>	<b>One lesson</b>	<b>Four lessons</b>
Solving puzzles and responding to suggestions.	Presenting different points of view.	Listening for key information.	Digging tunnels Lines and drawings Sketching and measuring A puzzle for engineers
Telling a news story.	Writing a news article.	Listening to a weather forecast.	Drilling for oil Describing and classifying Heat and temperature Air-conditioning maintenance
Giving advice.	Leaflets giving advice.	Listening for specific details and contrastive stress.	Maths in engineering Information in graphs Electricity Circuits and symbols
Telling a story from pictures.	Writing a story.	Listening to complete notes.	Not according to plan Properties of materials Hazards at work Accident report
Talking about books.	A book review.	Listening for detail and consonant clusters.	Under the sea Incandescent light Moving to faraway places Holograms
Exchanging information.	Longer sentences.	Functions of a conversation.	Sports equipment Sports stadiums Skyscrapers Reporting speech
Giving instructions.	Instructions.	Understanding information and instructions.	Flood control The Bhopal chemical disaster How safe is your job? Getting the job done
Giving opinions and comparing English with Arabic.	Comparing and contrasting.	Predicting content and listening for gist.	Cities of the future Space-saving ideas High-rise buildings Cities and buildings

# Unit 1

## Puzzles and mysteries

### Lessons 1 & 2: Reading: Predicting content

#### 1. Before you read (Lesson 1)

**1** Look at the photos on page 7. Then discuss these questions in pairs.

1. Which of the photos was taken from a plane?
2. What can you see in each photo?
3. How old do you think the lines in each photo are?
4. Who or what do you think made the lines?

**2** Circle the word in each pair which you think you will find in the text. Discuss your reasons with a partner.

1. desert / sea
2. trees / ground
3. straight / short
4. colour / shape
5. flat / mountainous
6. paths / road
7. sandy / stony
8. draw / write
9. aliens / human beings
10. uncertain / unlikely

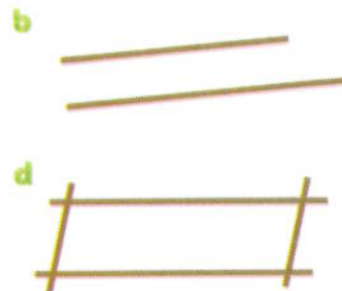
#### 2. While you read

**1** Read the first two paragraphs of the text. Find the answers to these questions.

1. Where are the Nazca lines?
2. What size is the area covered by the pictures?
3. Why didn't people discover the pictures until the 1930s?
4. How old do scientists think the pictures are?

**2** Match each diagram to a sentence.

1. The lines form a shape.
2. The lines are randomly placed.
3. The lines are parallel.
4. The lines intersect.



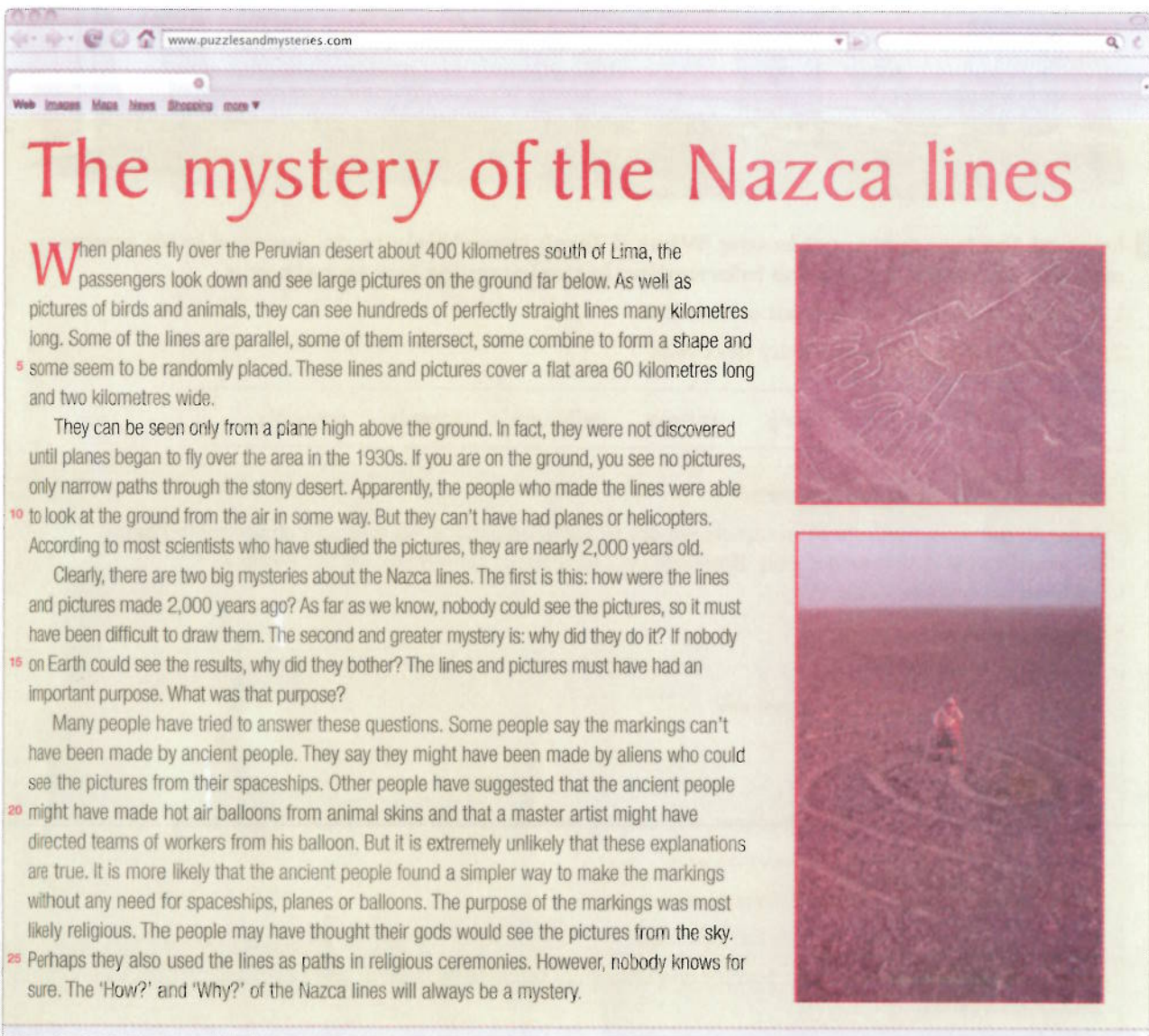
## Reading

**C** Read the last two paragraphs. Write notes about each of the following in your notebook.

1. what the two mysteries of the Nazca lines are
2. theories about the mysteries
3. the writer's opinion about the theories

**D** Compare your answers with a partner and discuss these questions.

1. Which of the theories about the Nazca lines do you think is the most believable?
2. Which of the theories do you think is the least believable?
3. Have you got any more ideas about how the lines were made?





**The mystery of the Nazca lines**

When planes fly over the Peruvian desert about 400 kilometres south of Lima, the passengers look down and see large pictures on the ground far below. As well as pictures of birds and animals, they can see hundreds of perfectly straight lines many kilometres long. Some of the lines are parallel, some of them intersect, some combine to form a shape and some seem to be randomly placed. These lines and pictures cover a flat area 60 kilometres long and two kilometres wide.

They can be seen only from a plane high above the ground. In fact, they were not discovered until planes began to fly over the area in the 1930s. If you are on the ground, you see no pictures, only narrow paths through the stony desert. Apparently, the people who made the lines were able to look at the ground from the air in some way. But they can't have had planes or helicopters. According to most scientists who have studied the pictures, they are nearly 2,000 years old.

Clearly, there are two big mysteries about the Nazca lines. The first is this: how were the lines and pictures made 2,000 years ago? As far as we know, nobody could see the pictures, so it must have been difficult to draw them. The second and greater mystery is: why did they do it? If nobody on Earth could see the results, why did they bother? The lines and pictures must have had an important purpose. What was that purpose?

Many people have tried to answer these questions. Some people say the markings can't have been made by ancient people. They say they might have been made by aliens who could see the pictures from their spaceships. Other people have suggested that the ancient people might have made hot air balloons from animal skins and that a master artist might have directed teams of workers from his balloon. But it is extremely unlikely that these explanations are true. It is more likely that the ancient people found a simpler way to make the markings without any need for spaceships, planes or balloons. The purpose of the markings was most likely religious. The people may have thought their gods would see the pictures from the sky. Perhaps they also used the lines as paths in religious ceremonies. However, nobody knows for sure. The 'How?' and 'Why?' of the Nazca lines will always be a mystery.

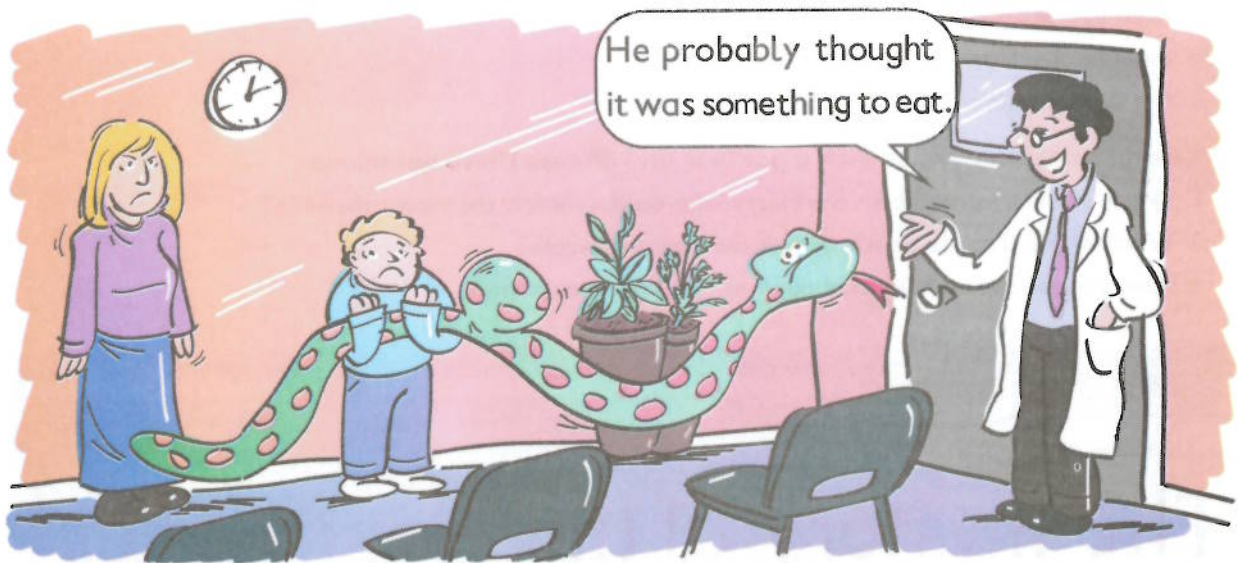


### 3. After you read (Lesson 2)

**A** Now do Exercises A to E on Workbook page 4.

## Lesson 3: Vocabulary: Certainty and uncertainty

- A** Look at the picture and read what the vet says. What do you think it is? Do you think the vet is sure what happened?



- B** Look at the two sentences below. What is Tarek more likely to do, succeed in his exams or go to university? Read the information in the language box to help you.

1. Tarek is clearly going to do well in his exams.
2. He is probably going to university next year.

apparently    clearly    likely    unlikely    definitely    actually    probably

### Degrees of certainty – adverbs

We can show how certain or uncertain we are by using adverbs. If we are sure about something, we use *actually*, *clearly* or *definitely*. If we are less sure about something, we use *possibly*, *probably* or *apparently*.

We put these adverbs:

- after the verb *to be*

**Example:** *He is clearly an intelligent boy.*

- before other verbs

**Example:** *He clearly works hard.*

- between an auxiliary verb (*be, have, will, can, do, etc.*) and a main verb in positive sentences

**Example:** *He has clearly studied hard all year.*

- before an auxiliary verb in negative sentences

**Example:** *He clearly didn't want to fail the exams.*

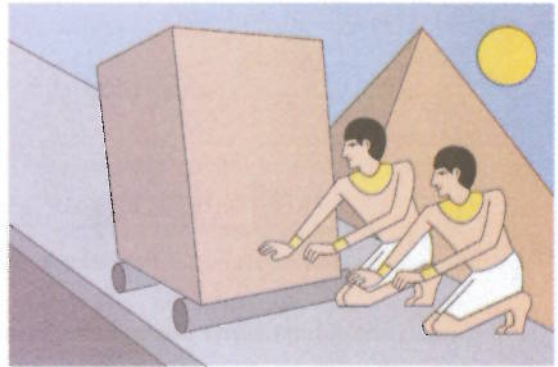
**Note:** *Actually, clearly, probably, possibly* and *apparently* can also be used at the beginning or end of a sentence.

**Example:** *Clearly, he is the best student in the class.*

- C** Now do Exercises A and B on Workbook page 5.



**A** In pairs describe the pictures.



**B** Match the questions 1–8 to the answers a–h.

- |  |                          |   |
|--|--------------------------|---|
| 1. Who built the Great Pyramid?            | <input type="checkbox"/> | a) They rolled them on long pieces of wood. |
| 2. When did they build it?                 | <input type="checkbox"/> | b) About 30 years.                          |
| 3. How long did it take?                   | <input type="checkbox"/> | c) To make a tomb for the pharaoh.          |
| 4. How many people helped to build it?     | <input type="checkbox"/> | d) Probably from Aswan.                     |
| 5. What did they use to build the pyramid? | <input type="checkbox"/> | e) About 20,000.                            |
| 6. Where did the materials come from?      | <input type="checkbox"/> | f) Stone.                                   |
| 7. How did they transport them?            | <input type="checkbox"/> | g) The ancient Egyptians.                   |
| 8. Why did they build it?                  | <input type="checkbox"/> | h) 4,600 years ago.                         |

**C** Look carefully at the questions in Exercise B. How are questions 1 and 4 different from the other six questions? Check by reading the information below.

#### Subject and object questions

In the question *Who built the Great Pyramid?* we want to find out information about the subject of the verb (*the Ancient Egyptians*). This type of question is sometimes called a subject question.

In the question *Why did they build it?* we already know the subject (*they*), and so we are asking about something else (*the reason why*). This type of question is sometimes called an object question.

We make subject questions without *do* or *did*. They usually begin with *who* or *what*.

Examples:

**Who** gave you my e-mail address? [Answer: Katie gave me your e-mail address.]

**What** makes him run? [Answer: Ambition makes him run.]

We use *do(n't)* or *did(n't)* in object questions in the present or simple past.

Examples:

**Where** did you get that scarf? [Answer: In Tripoli.]

**Why** does wood float? [Answer: Because it is less dense than water.]

**Why** didn't you open the door? [Answer: Because I couldn't find the key.]

**D** Now do Exercises A to D on Workbook page 6–7.

## 1. Preparation for writing

- A** Read the article and find four theories about the disappearance of the dinosaurs. Write brief notes about each one in your notebook.

# Was T-Rex killed by a tiny insect?

A new theory has renewed scientific debate about exactly why dinosaurs disappeared from the face of the Earth 65 million years ago.



According to George and Roberta Poinar from Oregon State University, tiny insects might have played an important role in wiping out the giant beasts. The husband-and-wife team have spent their lives studying the insect and plant life which is preserved in fossilized amber. They believe that a variety of insects may have spread infectious diseases or caused stomach problems which gradually made the dinosaurs die out.

In the 1980s, most people believed the theory of Professors Luis and Walter Alvarez as the most likely reason for the dinosaurs' extinction. In their view, the dinosaurs must have been killed by a giant asteroid hitting the Earth. More recently, a team of

German scientists led by Peter Schulte claimed that a series of volcanic eruptions were the cause of the dinosaurs' disappearance. They believed that these eruptions released toxic elements like cadmium and nickel into the atmosphere. Others have said that the planet may have been hit by a massive storm which killed off the dinosaurs.

In fact, none of these sudden death theories is convincing. The dinosaurs can't have disappeared so suddenly. Apparently, fossil evidence shows that extinction was a gradual process, which happened over millions of years.

The Poinars' theory is much more likely to be true. Actually, George and Roberta agree that

insects were probably just one factor in the disappearance of the dinosaurs. Climate change could also have contributed to this gradual process. Because dinosaurs were cold-blooded, they might not have survived increasingly cold temperatures. Perhaps it was more and more difficult for them to find food in the colder climate, experts argue.

We may never know exactly who or what killed the dinosaurs. But it seems that new ideas about this mystery will continue to fascinate future generations.

Adapted from: Science Daily, Jan 4, 2008, <http://www.sciencedaily.com/releases/2008/01/080103090702.htm>

- B** Look at the ways of introducing points of view in the language box. Find and underline examples in the text.

### Introducing points of view

- In fact, ...
- (Scientists) claim that ...
- According to ...
- In their view, ...
- (Experts) have put forward the idea that ...
- They believe that ...

- C** Choose a mysterious place or event from this unit or a mystery of your own. Do some research in a library or on the Internet. Make notes about different theories people have used to explain the mystery.

## 2. Writing

- A** Now do Exercise A on Workbook page 9.

## Lesson 8: Digging tunnels

**A** Look at the picture and identify a pipe and a trench.

**B** Underline the correct definition of the verbs in bold.

1. If engineers **drill**, they dig or make holes / work hard.
2. If something **collapses**, it grows bigger / falls down.
3. If engineers **blast** rock, they use tools / explosives.



**C** In pairs, answer these questions. Use the key words in Exercises A and B.

1. How were the tunnels and pipelines for the Great Man-made River constructed?
2. How are tunnels made through rock?
3. What are the difficulties of constructing a tunnel through soft ground under water?

**D** Do you know anything about Marc Brunel or his son, Isambard Brunel? Read the text to find out how they dug tunnels through soft ground.

### The Brunels and the tunnel under the Thames

Two of the greatest engineers who have ever lived were Marc Brunel (1769–1849) and his son Isambard Brunel (1806–1859). They are remembered for their **brilliant solutions** to the engineering problems and puzzles of their time.

One of their most famous **projects** was a long tunnel under the River Thames in London. Before they could start, they had to solve a difficult problem: the ground under the river was soft and muddy. When men tried to dig through it, the roof of the tunnel **leaked** badly and often collapsed on the workers. The Brunels solved

this problem with a large-diameter metal pipe. The pipe was pushed through the soft ground. Then men stood inside the pipe as they dug. A similar method is still used today: the pipe is called a **shield**, and men have been replaced by machines. The men who worked under the Thames must have been very **courageous** because it was dangerous work; Isambard Brunel himself was injured in 1828. But the tunnel was completed. It was the first of its kind in the world, and is still used today.

**E** Cover the text and in your own words, explain to a partner how the Brunels solved the problem of digging tunnels through soft ground.

**F** Now do Exercises A to C on Workbook page 9.

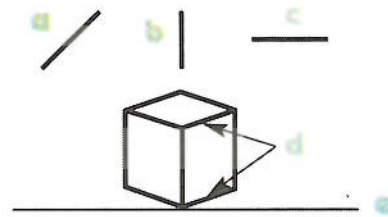
## Lesson 9: Lines and drawings

**A** In your notebook, draw the following lines and then compare with a partner.

1. parallel lines
2. a straight line
3. intersecting lines
4. a curved line

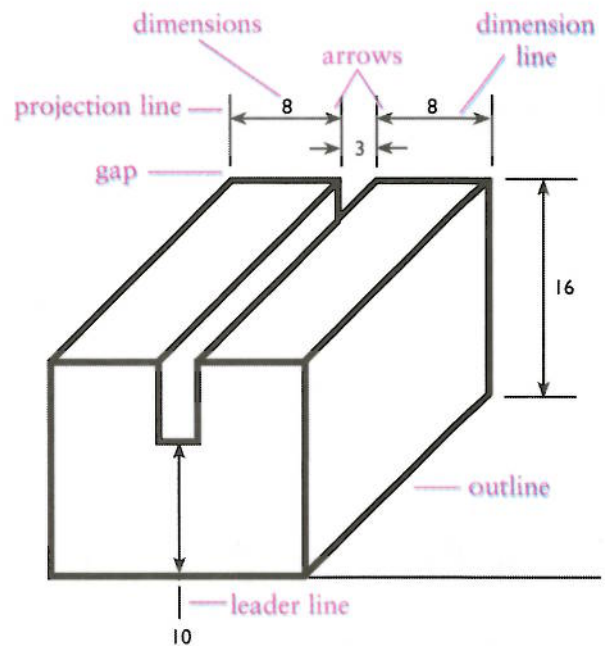
**B** Match the words 1–5 to the lines a–e.

- |                      |                          |                    |                          |
|----------------------|--------------------------|--------------------|--------------------------|
| 1. a vertical line   | <input type="checkbox"/> | 4. a receding line | <input type="checkbox"/> |
| 2. a horizontal line | <input type="checkbox"/> | 5. a base line     | <input type="checkbox"/> |
| 3. a diagonal line   | <input type="checkbox"/> |                    |                          |



**C** Study the engineering drawing on the right. Then complete the sentences with words from the diagram.

1. Projection lines are always thinner than \_\_\_\_\_.
2. There should be a small gap between the \_\_\_\_\_ and the part that it refers to.
3. If there is not enough space for a dimension line between two projection lines, the \_\_\_\_\_ are placed outside pointing inwards.
4. \_\_\_\_\_ lines can be used to take the dimensions outside the drawing.
5. The ends of the \_\_\_\_\_ should touch the outline or projection line.



**D** Study the vocabulary box. Then work in pairs and ask and answer questions about what the lines in Exercise C look like.

**Example:** A: What does a dimension line look like?

B: It's a thin continuous line with an arrow at each end.

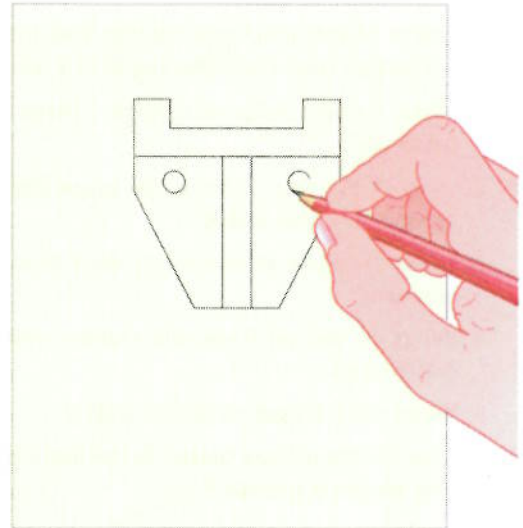
1. a thick continuous line	
2. a thin continuous line	
3. a dashed line	
4. a chain line	

**E** Now do Exercise A on Workbook page 10.

## Lesson 10: Sketching and measuring

**A** Imagine that you have to make a freehand sketch of a machine part. Read the instructions and put them in the correct order. Then compare with other students.

- When the basic sketches are complete, check carefully that you have not left out any important details.
- Get a sheet of clean paper and a sharp hard pencil. Rest or support the work on a flat surface.
- Take measurements and write them correctly on the sketch.
- Make an enlarged sketch of any small details where necessary. Enclose this sketch in a circle.
- Decide what dimensions are needed and where to mark them. Draw projection lines and dimension lines.
- Select the measuring instruments that you will need, depending on the shapes to be measured and the accuracy required.
- When you are satisfied with your rough sketches, draw the outlines more heavily and add any necessary details.
- Decide what views are necessary and make rough outline sketches using faint lines.



1.  2.  3.  4.   
5.  6.  7.  8.

**B** Look at these measuring instruments. Don't worry about what they are called for now. In pairs, discuss what you think each instrument is used for.

1



2



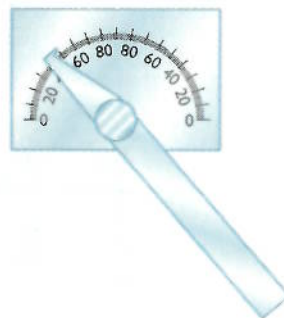
3



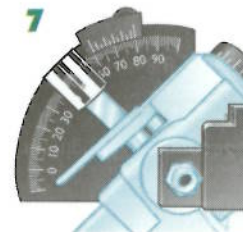
4



6



7



5



8

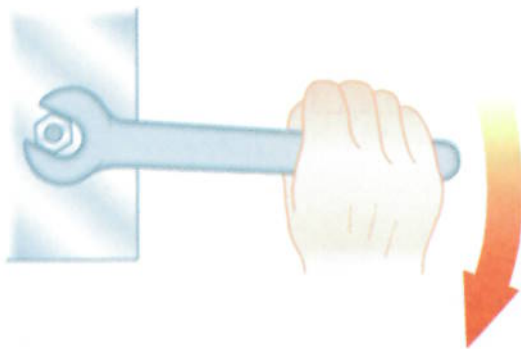


**C** Now do Exercises A to C on Workbook page 10.

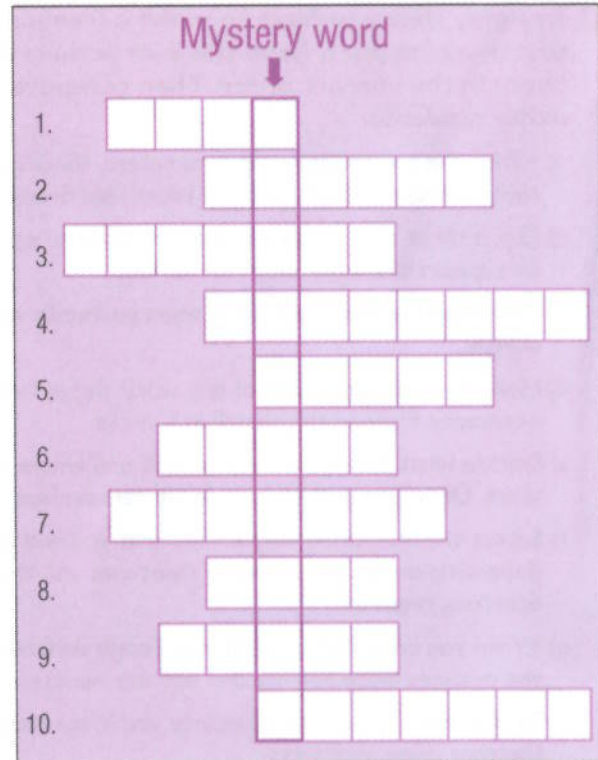
## Lesson 11: A puzzle for engineers

**A** Answer the questions. Write the answers in the spaces and find the mystery word.

1. What causes a solid to melt or a liquid to vaporize?
2. Look at the drill. What is the large-diameter pipe around this drill called?
3. What property of electricity does an ammeter measure?
4. What do you get if you mix cement, sand, stones and water?
5. What tool is used to dig oil wells?
6. Look at the picture below. Is this the right or wrong way to use a spanner?



7. What do we call the quantity of electricity conveyed by one ampere in one second?
8. In geometry, what figure has only one dimension?
9. What is the missing word?  
*If the \_\_\_\_\_ in the radiator leaks out, the car will overheat.*
10. What does metal do when it is heated?



**B** Look at the mystery word in Exercise A. What does this instrument measure?

**C** Now do Exercises A and B on Workbook page 11.

## Lesson 12: Listening: Listening for key information

- A** Read the information about a television programme and look at the pictures. Who are the two people in the pictures? What are they talking about?



Tonight's highlights

### Suspicious circumstances

Channel 3, 8:00p.m.

A new episode of the gripping detective series. When Hasan's body is found in his office and there are no signs of a fight or struggle, Detective Ahmed's suspicions are aroused. His attention is drawn to Abdullah, the dead man's business partner ...

- B** You are going to listen to the detective's interview with Abdullah. Write two questions you think the detective will ask.

- C** Read the detective's notes. Listen to part 1 of the interview. Correct the mistake in the notes and complete the last sentence.

- D** Listen to part 2 of the interview. Then answer the questions.

1. How many people have spoken to Abdullah about the murder?
2. According to Abdullah, was Hasan popular?
3. What was Hasan like?

Dead man's name: Hasan

Killed in his office - 6p.m.

Abdullah - at brother's house

About 30 kilometres away from office

Abdullah got home at \_\_\_\_\_

- E** Listen to part 3 of the interview. Then answer the questions.

1. Who told Abdullah that the knife was in Hasan's back?
2. How does the detective know that Abdullah is lying?

- F** Look at these questions from the interview. Listen to the intonation of the underlined part of the questions. Who sounds most sure, the detective or Abdullah?

1. I'm not under suspicion, am I?
2. You were there, weren't you?

- G** Practise saying these questions with rising and falling intonation. Work in pairs. Say if your partner is sure or unsure.

1. You haven't got any brothers, have you?
2. Dinosaurs were cold-blooded, weren't they?
3. Petra is in Jordan, isn't it?

# Unit 2

## Weather and climate

### Lessons 1 & 2: Reading: Taking notes

#### 1. Before you read [Lesson 1]

- A** Work in pairs. Look at the table. Write more words about weather and climate. How many can you write in three minutes?

nouns	<i>rain, temperature</i>
verbs	<i>rain</i>
adjectives	<i>rainy</i>

- B** Look at the pictures and captions on page 19. Discuss these questions.

1. What are Ali and Wendy's hometowns?
2. What do you think the climate is like where they live?

#### 2. While you read

- A** Read only the introduction to the text on page 19 and answer these questions.

1. What does the writer want to find out? \_\_\_\_\_
2. Why did the writer choose people from these two places? \_\_\_\_\_

- B** Look at this example of note-taking. Are the sentences complete?

Example:

*1. examples of extreme temperatures*

<i>MUSCAT</i>	<i>swimming pools too hot to swim in</i>
<i>FAIRBANKS</i>	<i>ice on lake - cars can drive on it</i>

- C** Work in pairs. Student A, read Ali's text. Student B, read Wendy's text. Make notes in your notebook under these headings.

1. examples of extreme temperatures
2. going out and staying in
3. clothes
4. special features of buildings
5. health problems
6. the best part of the year

#### 3. After you read [Lesson 2]

- A** Now do Exercises A to E on Workbook page 12.



# Hot and cold

How does climate affect the way we live? To find out, we asked two teenagers from different parts of the world: Ali Naji, who lives in one of the hottest capital cities on Earth, and Wendy Baker, from a town where the winter temperature drops to  $-25^{\circ}\text{C}$  or lower.



Ali and his family in Muscat, Oman



Wendy and her family in Fairbanks, Alaska

'Muscat, the capital of Oman, is so hot in summer that most swimming pools are too hot to swim in. Car bodies get hot enough to cook on. Without air conditioning, driving would be impossible; the steering wheel would burn your hands.

If you go out of your house at midday, sweat begins to drip down your neck within seconds, which feels horrible. We stay indoors during the day if we can, and go out in the evenings and early mornings. We wear thin cotton *dishdashas*, which feel more comfortable than European clothes, and open leather sandals. Of course, everyone covers their heads.

Surprisingly, more people catch colds in the summer than in the winter. This is because the air conditioning in big buildings sometimes makes the air too cold, and it spreads germs, too.

The winter in Oman is wonderful. It's like a European summer. Sometimes the clear blue sky becomes cloudy, but most of the time the weather is perfect for enjoying life outdoors.'

'The winters here are very cold. There's a lake near my house which freezes in winter. The ice on the lake is so thick that you can drive a car on it.

Houses are often half-buried under snow in winter. If your front door is on the ground floor, you have to dig your way out through the snow, so many houses have an upstairs door, which is above the snow.

It's too cold to go out unless you wear thick woollen sweaters, a thick waterproof jacket, gloves to protect your hands, and a warm fur hat. Without a hat, your head really hurts. Inside, the buildings are warm, and they have windows with three layers of glass to keep the cold out. People stay indoors a lot, which can be unhealthy physically and mentally.

It sounds terrible, but it's not so bad. There are winter sports like skiing and ice skating, which are great fun, and in summer the snow melts. The country becomes green again, and the lake is warm enough to swim in.'

## Lesson 3: Vocabulary: Adjectives with prepositions

### A Look at the pictures and discuss these questions.

1. What is happening in each picture?
2. How do you think the people in the pictures feel?

### B Match the sentences 1-13 to the pictures a-f. Only six sentences will be used. Do not fill in the gaps yet.

1. \_\_\_ He's interested \_\_\_ computers.
2. \_\_\_ Some people are afraid \_\_\_ flying.
3. \_\_\_ He's not very good \_\_\_ Maths.
4. \_\_\_ She's worried \_\_\_ her exams.
5. \_\_\_ He's married \_\_\_ my cousin.
6. \_\_\_ I felt sorry \_\_\_ her when she was in hospital.
7. \_\_\_ Hurry up! You'll be late \_\_\_ school.
8. \_\_\_ They are very kind \_\_\_ me.
9. \_\_\_ Salem's very keen \_\_\_ football.
10. \_\_\_ Be careful \_\_\_ that glass. Don't drop it.
11. \_\_\_ The teacher was angry \_\_\_ me because I hadn't done the work.
12. \_\_\_ Most of the class was absent \_\_\_ school yesterday.
13. \_\_\_ Are you ready \_\_\_ your test tomorrow?

### C Complete the sentences 1-13 above with the prepositions in the box below.

about at for (x3) from in of on to (x2) with (x2)

### D Study the language box. Then circle the adjective + preposition combinations in Exercise B.

#### Adjective + preposition

A lot of adjectives in English are followed by a preposition. The preposition is fixed, so you must memorize the two words together.

#### Examples:

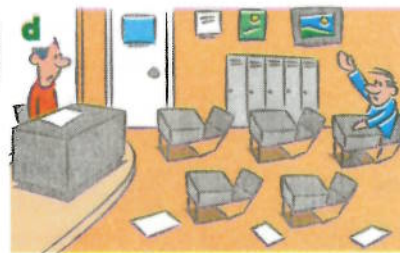
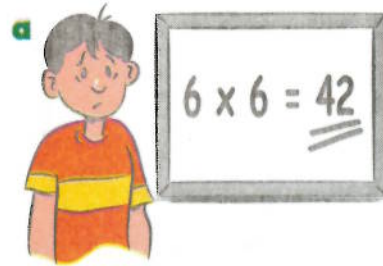
He is *responsible for* all the people in his office.  
What's wrong *with* you today?

### E Work with a partner. Ask and answer questions using the adjective + preposition combinations in Exercise B.

#### Examples:

1. Are you *interested in* computers?  
Yes, I am.
2. What are you *afraid of*?  
I'm afraid of snakes.

### F Now do Exercise A on Workbook page 13.



## Lesson 4: Grammar 1: Adjectives with so, enough and too

**A** Study the grammar box and complete the patterns 1–3.

### Adjectives with *so*, *enough* and *too*

These three sentences have a similar meaning.

1. It's so hot that you can't go out.
2. It's not cool enough to go out.
3. It's too hot to go out.

Use the sentences to complete the three patterns.

1. so + adjective + that
2. adjective + \_\_\_\_\_ + infinitive
3. too + \_\_\_\_\_ + \_\_\_\_\_

Now underline the patterns in these sentences.

- a) The ice is so thick that you can drive on it.
- b) The ice is thick enough to drive on.
- c) The ice is not too thin to drive on.



**B** Complete each sentence so that it is similar in meaning to the sentence above it.

Use *so*, *enough* and *too*.

1. The lake is too cold to swim in.  
The lake is not warm \_\_\_\_\_.
2. The car was too hot to touch.  
The car was \_\_\_\_\_.
3. The pool gets so hot that you can't swim in it.  
The pool gets \_\_\_\_\_.
4. We couldn't walk on the sand because it was too hot.  
The sand was \_\_\_\_\_.
5. A hurricane can destroy buildings.  
A hurricane is strong \_\_\_\_\_.
6. It's too cloudy to sit on the beach.  
It's not sunny \_\_\_\_\_.
7. A tornado is strong enough to pick up a car.  
A tornado is \_\_\_\_\_.

**C** Write at least two sentences about each picture in your notebook. Use *so*, *enough* and *too*.



**D** Now do Exercises A to C on Workbook page 13.

**A** Work in pairs. Can you remember the headlines from the news stories in Lesson 6? Fill in the blanks with the missing words.

1. 5,000 homes \_\_\_\_\_
2. Flash floods \_\_\_\_\_
3. \_\_\_\_\_ by lightning
4. Forest fire still \_\_\_\_\_
5. Widespread \_\_\_\_\_ after two years of drought
6. Ship's crew \_\_\_\_\_ in storm
7. \_\_\_\_\_ lost after sandstorm
8. Hurricane hits \_\_\_\_\_

**B** Read about topic sentences in the box. Then choose one of the headlines in Exercise A. In your notebook, write a short sentence about each of the following main ideas.

**Topic sentences**

In a narrative, each new paragraph often starts with a topic sentence. This sentence gives the main idea of the paragraph. It is followed by explanations, examples and more information.

In this news article about a weather problem, there are three main ideas.

1. the cause
2. the events
3. the future

Each main idea will be the focus of one paragraph, so you will have three paragraphs.

1. the original cause of the emergency \_\_\_\_\_  
\_\_\_\_\_
2. what happened during the emergency \_\_\_\_\_  
\_\_\_\_\_
3. what will happen now \_\_\_\_\_  
\_\_\_\_\_

**C** Which paragraph do these expressions go in? Mark them 1, 2 or 3.

- |   |                             |
|---|-----------------------------|
| ___ now the government has decided to ... | ___ nobody had realized ... |
| ___ at first ...                          | ___ unfortunately ...       |
| ___ luckily ...                           | ___ in the end ...          |
| ___ suddenly ...                          | ___ from now on ...         |
| ___ the problem originated in ...         | ___ one hour later ...      |
| ___ then/next/after that ...              | ___ it was too late ...     |
| ___ some time before ...                  | ___ in the future ...       |

**D** Write the three paragraphs of your news article in your notebook. Use the sentences you wrote in Exercise B above to start each paragraph. Include expressions from Exercise C.

**E** Check your writing for spelling, punctuation and grammar. Then give it to a partner to check.

**F** Now do Exercises A to C on Workbook pages 14–15.

## Lesson 8: Drilling for oil

**A** What do you know about drilling for oil?  
In pairs, answer these questions.

1. What percentage of the world's oil comes from offshore wells?  
a) 10%   b) 25%   c) 40%
2. What kinds of weather cause problems for offshore rigs, and why?
3. What do you think downtime means?



**B** Read this extract from a radio show and check your answers to Exercise A.

Hello, and welcome to The World Tomorrow. Today, we look at the problems of bad weather for offshore drilling rigs, and how a new type of rig is solving those problems. Offshore drilling rigs are used in the sea off the coasts of Libya, Britain, and many other oil-producing countries. They are very important to the oil industry because offshore wells produce 25 per cent of the world's oil. The biggest problem for the rigs is the weather. High winds and rough seas move the rigs from side to side, and can easily cause hours or even days of downtime – that is, time when the drills cannot operate.

**C** Now read the second extract from the show. The presenter describes two types of rig. Complete the notes below.

There are two types of offshore rig. In shallow waters, the rigs are on a platform that has legs resting on the seabed. The legs support the platform about 40 metres above the water, and keep the rig steady. But this type of rig can't be used in deep water, or in areas where rough weather is common. In deeper water – over 300 metres – and bad weather conditions, floating rigs are used. Most floating rigs use anchors to stay in position, but if the sea is very rough, the rig moves too much and drilling is impossible.

### RIGS IN SHALLOW WATER

- on platform
- legs rest on \_\_\_\_\_
- platform \_\_\_\_\_ above water
- legs keep rig \_\_\_\_\_

### FLOATING RIGS

- water deeper than \_\_\_\_\_ metres
- bad \_\_\_\_\_ conditions
- anchors
- if sea is rough, rig \_\_\_\_\_ too much

**D** Use your notes from Exercise C to talk about the two kinds of rig.

**E** Now do Exercise A to C on Workbook page 15.

## Lesson 9: Describing and classifying



**A Match the people 1–5 to the job descriptions a–e.**

- a) drives a vehicle that carries petrol to service stations
- b) supervises the drilling of wells
- c) checks and repairs or replaces equipment
- d) studies data and builds up a description of an underground oil reservoir
- e) monitors and tries to improve oil recovery from the well

**B Read the information about the phrases 1–5 in Exercise A.**

The first word in each phrase classifies the second word. It answers the question *What type of... engineer?* Classifying words can be adjectives (*geological*), but they are usually nouns (*production*). Descriptive adjectives, like *young* or *Libyan*, always come before classifying words.

Examples:

*a young maintenance technician*

*a Libyan geological engineer*

**C In pairs, put the words in the correct order to make a meaningful phrase.**

- |                                  |   |
|----------------------------------|---|
| 1. rig / large / a / drilling    | 4. industry / successful / the / oil / Libyan   |
| 2. conditions / weather / severe | 5. oil / big / a / rise / price                 |
| 3. a / new / pipeline / oil      | 6. new / survey / geological / interesting / an |

**D Look again at your phrases from Exercise C. Where could you put adverbs like *very* or *extremely*?**

**E Now do Exercises A to C on Workbook page 16.**

## Lesson 10: Heat and temperature

### A In pairs, try to answer these questions.

1. Which was invented first: the Celsius scale or the Kelvin scale?
2. What is the difference between  $0^{\circ}\text{C}$  and  $0^{\circ}\text{K}$ ?
3. What effect does very cold weather have on steel objects?
4. If a metal bar is hot at one end and cold at the other end, in which direction does the energy flow?

### B Read the text. Then use the words in the box to complete it.

convection   lower   temperature   heat (x2)  
object   Sun   well   hotter

### HEAT TRANSFER

This is the process by which heat energy moves from one place to another because of differences in ① \_\_\_\_\_. There are three methods of heat transfer:

- conduction   – radiation
- convection

These three can occur together, but usually one is more important than the others. For example, when the weather is hot,

- ② \_\_\_\_\_ enters a house mainly by conduction through the walls, although convection and radiation through doors and windows also play a part. Water being heated in a pan is an example of ③ \_\_\_\_\_. Heat from the ④ \_\_\_\_\_ reaches Earth by radiation.

### CONDUCTION

Conduction is the method of heat transfer in solid objects. If one part of an ⑤ \_\_\_\_\_ becomes hotter than another part, heat is conducted from the ⑥ \_\_\_\_\_ part to the colder part. Scientists believe that the energy is transported by free electrons in the object. So materials such as gold, silver and copper, which conduct heat ⑦ \_\_\_\_\_, also conduct electricity well.

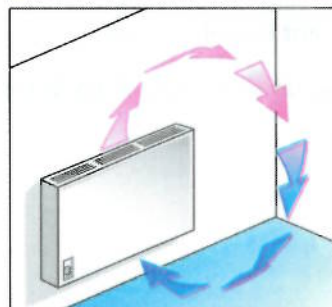
In contrast, materials like glass and plastic have much

- ⑧ \_\_\_\_\_ thermal and electrical conductivity and are called insulators. Engineers often need to know how quickly ⑨ \_\_\_\_\_ will be conducted through a solid object. If the object is a complex one, they can use computers to calculate the rate of transfer.

### C Work in pairs. Discuss these questions about the second kind of heat transfer: convection.

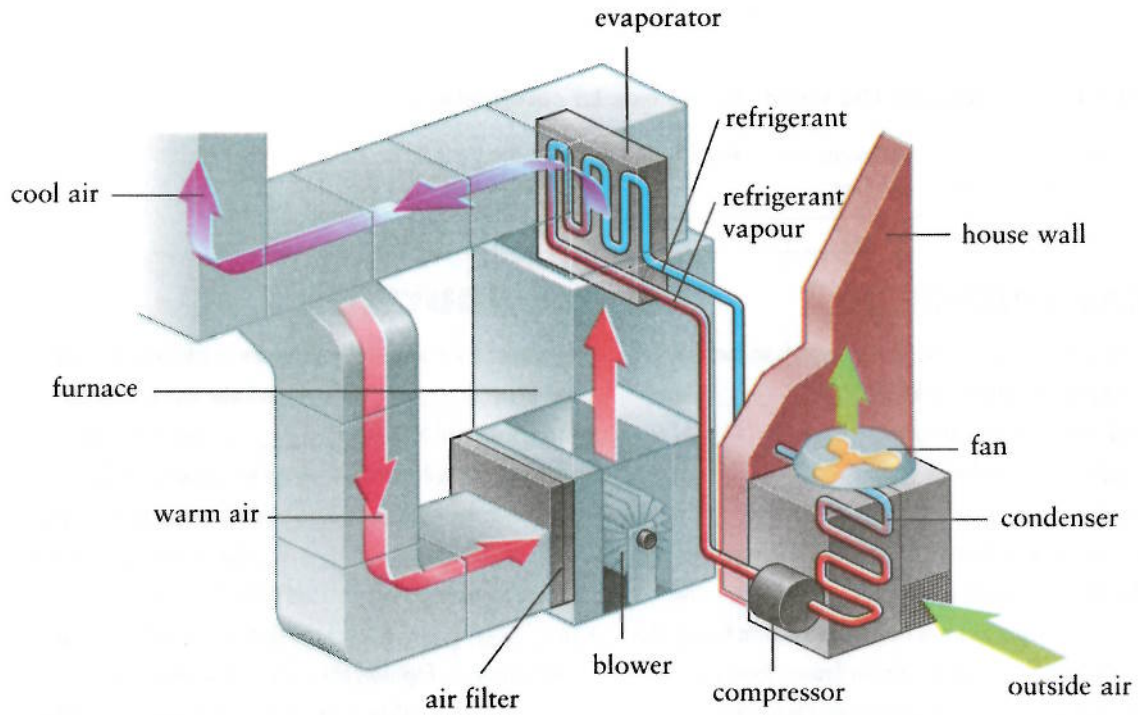
1. Does convection take place in solids or fluids (liquids and gases)?
2. Describe the examples of convection shown in the two pictures.
3. How is convection different from conduction?
4. What happens to the density of a fluid when it is heated?
5. Why do hot fluids rise and cold ones fall?
6. Why do engineers need to understand convection when installing heating and air conditioning in a room?

### D Now do Exercises A and B on Workbook page 17.



## Lesson 11: Air-conditioning maintenance

- A** How does this air-conditioning system work? Use the given words in your answer.



- B** In pairs, discuss these questions.

1. How are other air-conditioning systems different from the one in the picture?
2. What can go wrong with air-conditioning?

- C** Study these items from a maintenance schedule for an air-conditioning system. In pairs, explain the meaning of each verb or phrase in *italics*.

1. *Clean* or *replace* filter.
2. *Inspect* and *test* electrical insulation.
3. *Investigate* any vibration.
4. *Disinfect* air ducts.
5. *Adjust* fan belt tension.
6. *Take readings* from the hours run meter.
7. *Assess* leaks for repair.
8. *Lubricate* fan bearings.
9. *Check* that overflow systems are clear.
10. *Measure* refrigerant pressure.

- D** Now do Exercises A to D on Workbook pages 17–18.



## Lesson 12:

- A** Work in pairs and that you

thundersto

- B** It is wint weekend. Lis

1. Which count
2. Explain why

Libya O

- C** The famil Look at thei forecast aga good or bad

1. Let's go for
2. Let's go to t
3. How about
4. We could v 150 kilomet
5. Why don't

- D** Work in pai Which boxe

1. are on the i
2. are in the s
3. show temp

- E** Listen to the map for

- F** Listen to again. Wha it contain f

1. fishermen
2. people who
3. people who

- G** Work in pa next few de

- H** When you and listen t

## Lesson 5: Grammar 2: Order of adjectives

- A** Match the phrases 1–6 to the pictures a–f.

1. wet weather
2. a nice old man
3. an annoying little insect
4. a rectangular wooden box
5. a red plastic nose
6. Egyptian silver jewellery



- B** The chart shows the usual order of common adjectives before a noun. Write words from Exercise A in the correct columns.

opinion	size	age	shape	colour	origin	m
nice						

- C** Think of at least two more words for each column in Exercise B and write

### Order of adjectives

In English, an adjective describes a noun (a thing). Adjectives go before a noun.

**Example:** a red car NOT a car red

If there is more than one adjective, they are in a fixed order.

**Example:** a German glass vase NOT a glass German vase

Usually, there are not more than two or three adjectives before a noun. So you will usually say something like *I have a beautiful, big, new, black, Japanese, plastic phone!*

- D** In pairs, make phrases with each of the words in the box. Use two or three adjectives and add a noun of your choice.

cotton	Libyan	white	big	international	useful	metal	tiny
interesting	Chinese	square	horrible	dark	blue	new	plastic

**Examples:** a new, cotton shirt  
a big, square table

- E** Look at this conversation. Write a description of an object in your notebook, using two or more adjectives. Read your description to your partner. He/she will listen and try to guess the object.



It's a large, flat, wood

No. It has large English words



Is it a desk?

Is it the blackboard?

**A** Study the grammar box and complete the patterns 1-3.

**Adjectives with so, enough and too**

These three sentences have a similar meaning.

1. It's so hot that you can't go out.
2. It's not cool enough to go out.
3. It's too hot to go out.

Use the sentences to complete the three patterns.

1. so + adjective + that
2. adjective + \_\_\_\_\_ + infinitive
3. too + \_\_\_\_\_ + \_\_\_\_\_

Now underline the patterns in these sentences.

- a) The ice is so thick that you can drive on it.
- b) The ice is thick enough to drive on.
- c) The ice is not too thin to drive on.



**B** Complete each sentence so that it is similar in meaning to the sentence above it.

Use *so, enough and too*.

1. The lake is too cold to swim in.  
The lake is not warm \_\_\_\_\_.
2. The car was too hot to touch.  
The car was \_\_\_\_\_.
3. The pool gets so hot that you can't swim in it.  
The pool gets \_\_\_\_\_.
4. We couldn't walk on the sand because it was too hot.  
The sand was \_\_\_\_\_.
5. A hurricane can destroy buildings.  
A hurricane is strong \_\_\_\_\_.
6. It's too cloudy to sit on the beach.  
It's not sunny \_\_\_\_\_.
7. A tornado is strong enough to pick up a car.  
A tornado is \_\_\_\_\_.

**C** Write at least two sentences about each picture in your notebook. Use *so, enough and too*.



**D** Now do Exercises A to C on Workbook page 13.

**C** Think about the following and discuss as a class.

1. Which of the results of the research is the most surprising?
2. Do you think the results of research like this would be the same or different in Libya?
3. Why did the writer choose the title *Just a minute!*?

# Just a minute!

The average young person today will spend more than 35,000 hours of his or her life eating. That is the equivalent of six years of continuous eating (if the person stops to sleep for 8 hours out of 24). If that doesn't surprise you, consider the following facts, which researchers in Britain have discovered. By the time Mr or Mrs Average is 70 years old, he or she will have spent five months waiting at red traffic lights; the important task of brushing his or her teeth will have taken about three months; and looking in mirrors will have filled another eight months. Some of these statistics are amusing, but others are worrying. Perhaps the most horrifying statistic of all is this: Mr and Mrs Average, aged 70, will have sat for nine years in front of the television.

Psychologists and sociologists are interested in information of this sort because it helps them to understand how people live nowadays. The information has practical uses, too. A scientist at Britain's Marriage Research Centre says, 'This type of information can help people to think about and improve their relationships.' For example, the average British married couple spend five minutes a day talking to each other, which is less than two days a year, or about ten weeks of their married lives. Parents and children spend even less time talking to each other – one minute a day during the years before the child leaves home, which amounts to only one week of their lives.

When people realize this, they ask themselves, 'Do I really want to spend less time talking to my loved ones than brushing my teeth? And do I really want to give nearly one-seventh of my waking life to the television?'



**3. After you read** (Lesson 2)

**A** Now do Exercises A to D on Workbook page 19.

## Lesson 3: Vocabulary: Until, by and future time phrases

### A Read the information about by and until.

#### Until and by

We use *until* to talk about an activity that will continue up to a certain point in the future.

**Example:** *I'll be studying until 6 p.m.* (At 6 p.m., the situation will change and I will stop studying.)

We use *by* to say that an activity will happen before or at a certain point in the future.

**Example:** *I'll finish my homework by 6 p.m.* (Sometime before 6 p.m., I will finish my homework.)

We often use the phrase *by the time* followed by a clause. It is not possible to add a clause directly after *by*.

**Example:** *By the time you arrive, we will have decorated the room.*

**Note:** We sometimes use *till* instead of *until* in informal spoken and written English.

### B Work in pairs. Explain the meaning of each sentence in your own words.

**Example:** He'll be in Cairo until 8 p.m. At 8 p.m., he will leave Cairo.

- a) He'll be in Cairo until 8 p.m. \_\_\_\_\_

b) He'll be in Cairo by 8 p.m. \_\_\_\_\_
- a) I won't finish until lunchtime. \_\_\_\_\_

b) I won't have finished by lunchtime. \_\_\_\_\_
- a) I'll work until the programme starts. \_\_\_\_\_

b) I'll have done the work by the time the programme starts. \_\_\_\_\_
- a) We can repair your car by Saturday. \_\_\_\_\_

b) We can work on your car until Saturday. \_\_\_\_\_
- a) I can stay till 10 p.m. \_\_\_\_\_

b) I have to leave by 10 p.m. \_\_\_\_\_

### C Now do Exercises A and B on Workbook page 20.

### D Look at the examples in the table below. Then add the words in the box to the table to make time phrases.

year   evening   night   January   next year   tomorrow   Monday after next			
tomorrow	<u>morning</u> <u>afternoon</u> _____ _____	the	<u>day after tomorrow</u> <u>week after next</u> _____ _____
next	<u>Monday</u> <u>month</u> _____ _____	this time	<u>next week</u> _____ _____

### E Now do Exercises C and D on Workbook pages 20–21.

## Lesson 4: Grammar 1: The future perfect and the future continuous

**A** Study the grammar box. Complete the information about the form of the future perfect.

### The future perfect

We use the future perfect to say that an action will be complete before a certain point in the future.

**Examples:** *I will have finished my homework at 6 p.m.*  
*They will have found a solution by the end of the day.*  
*By tomorrow, I will have spent a week writing this essay.*

The form of the future perfect is will \_\_\_\_\_ + past \_\_\_\_\_.

**B** Find and underline four examples of the future perfect in the text on Course Book page 31.

**C** Now do Exercise A on Workbook page 21.

**D** What will have happened by the year 2060? Work in pairs. Give your opinions using the verbs in brackets.

**Example:** robots (replace) teachers

*Robots will probably have replaced teachers.*

OR

*Robots probably won't have replaced teachers.*

1. Chinese (become) the most important language in the world

\_\_\_\_\_

2. scientists (find) a cure for cancer

\_\_\_\_\_

3. the population of the world (double)

\_\_\_\_\_

4. the world (run out) of oil

\_\_\_\_\_

5. scientists (learn) how to change the weather

\_\_\_\_\_

**E** Study the grammar box. Complete the information about the form of the future continuous.

### The future continuous

We use the future continuous to talk about what will be happening at a particular time in the future.

**Examples:** *Don't call me at 1:00, because I'll be having lunch.*  
*This time next week, we'll be flying to London.*

The form of the future continuous is will + \_\_\_\_\_ + verb -ing.

**F** Now do Exercises B and C on Workbook pages 21–22.



**A** Study the newspaper article and complete the grammar box.

## OPEC REPRESENTATIVES TO MEET NEXT WEEK

The representatives of all the OPEC countries are to meet next week. They will discuss the latest figures ...

### The infinitive with future meaning

In formal written English, we sometimes use *be* + \_\_\_\_\_ to talk about future arrangements. \_\_\_\_\_ often use this form when they write newspaper articles.

**Examples:** *The president is to open a hydroelectric dam next month.*  
*Taxi drivers in the capital are to protest against parking restrictions.*

This type of sentence is often in the \_\_\_\_\_ form.

**Example:** *New measures to combat climate change are to be announced.*

In newspaper \_\_\_\_\_, the verb *be* is usually left out. This shortened form is never used in spoken English.

**B** Now do Exercise A on Workbook page 22.

**C** Write a short newspaper headline about each future event below. Use a maximum of seven words.

**Example:** Tripoli will play the English football team, Manchester United, in January.  
*Tripoli to play Manchester United*

1. It has been decided that Monday will be a national holiday.

Monday \_\_\_\_\_

2. The new airport will open in January as planned.

\_\_\_\_\_

3. The government will spend more money on health education next year.

\_\_\_\_\_

4. Cigarettes will cost more when the new tax is introduced next month.

\_\_\_\_\_

5. Drivers in Britain, who have always driven on the left, will drive on the right from January 1<sup>st</sup> next year.

\_\_\_\_\_

6. According to the Family Research Unit, families will continue to get smaller during the next twenty years.

\_\_\_\_\_

**D** Work in pairs. Change the headlines you wrote in Exercise C to full sentences with *be* + infinitive and say them.

**Example:** Tripoli to play Manchester United  
*Tripoli are to play Manchester United.*

**E** Write a headline and the first few sentences of a newspaper article about another future event, real or imaginary.

### Libyan teenager to become chess master

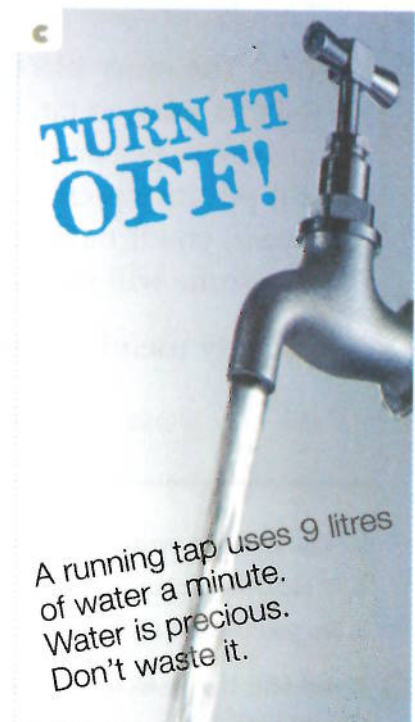
A 17-year-old from Tripoli is to become the youngest African chess master in history. The announcement ...



## Lesson 6: Speaking: Giving advice

**A** Look at the posters. Discuss these questions in small groups. Then share your ideas with the class.

1. What is the topic of each poster?
2. Which is the best poster and why?
3. Describe a similar poster or television advertisement that you have seen.
4. Suggest a caption for poster b.
5. Think of a new poster to encourage people to keep their neighbourhood tidy. Describe it to the class.



**B** Study the box. Which do you think is the strongest way of giving advice?

### Giving advice

We can give advice or warnings in English using particular verb forms.

**Examples:** *Don't drop litter.*

*You should keep the streets clear.*

*You shouldn't drop litter.*

Or we can give advice by using particular phrases.

**Examples:** *It's a good idea to keep your neighbourhood clean.*

*It's important to take your litter home.*

*It's important not to leave litter.*

*It's best to use bins for your litter.*

**C** Work in pairs. Make sentences about the advice each poster is giving.

**Example:** (Poster a) *You shouldn't speed. It's important not to speed.*

**D** Now do Exercise A on Workbook page 22.

1. Preparation for writing

**A** Look at the leaflet. Work with a partner. Answer the questions below.

## Is that what goes into my lungs?

**Yes!** The nasty black stuff in this one litre jar is tobacco tar. If you smoke a packet of cigarettes per day for a year, this is what you'll put into your lungs. At the end of the year, you'll have coughed up some of it, but some will stay in your lungs.

Tar is very useful. We make roads with it.

**But do you want it inside you?**



1. How does the writer make smoking unattractive?
2. Which statistic has the writer used on the cover of the leaflet?
3. Do you think the leaflet is effective? Why?/Why not?

**B** Read the three extracts below. Which one do you think is from the next page of the leaflet?

- 1 Most tar is made from coal, but it can also be made from petroleum or wood. Although tar is usually considered to be toxic, it is also used for the treatment
- 2 So isn't it time to stop smoking? It's important to make the decision to stop for yourself. You should also tell your friends and family that you are giving up as
- 3 By the time you are 70 years old you will have taken around 600 million breaths. The basic function of the lungs is to take carbon dioxide and exchange it

2. Writing

**A** Now do Exercises A and B on Workbook page 22.



## Lesson 8: Maths in engineering

### A Complete this short text with the words in the box.

calculate   formula   formulae   mathematical   subject

Engineers use mathematics to ① \_\_\_\_\_ relationships between physical quantities. They are helped by ② \_\_\_\_\_, such as  $v = d/t$  ( $v$  equals  $d$  over  $t$ ) which shows how distance ( $d$ ) and time ( $t$ ) relate to velocity ( $v$ ). This ③ \_\_\_\_\_ can be transposed to give us:  $d = vt$ . Now  $d$  is the ④ \_\_\_\_\_. Transposition is one of the most useful ⑤ \_\_\_\_\_ techniques that engineering students learn.

### B In pairs, name some other formulae that you know. Use the words in the table to help you.

quantity	area	volume	density	pressure	force	mass
unit	square metres	cubic metres	kg per $m^3$	newtons per $m^2$	newtons	kilograms

### C Study the language box. Then do the calculations below.

symbol	verb + preposition	preposition only
+	add ... to	plus
-	subtract ... from	minus
x	multiply ... by	times
÷	divide ... by	over

- Multiply three by seven.
- Subtract twelve from twenty-nine.
- Divide eighty-one by nine.
- Add four point two to seven point nine.
- What is seven times twenty?
- What is twenty-eight divided by seven?
- What is twenty over five as a whole number?
- What is two thirds plus three fifths?
- What is nine minus twelve?

### D Study the example dialogue. Then work in pairs. Prepare similar dialogues from the questions below.

How do you ... ?

- make  $u$  the subject of the formula  $v = u + at$
- make  $A$  the subject of  $P = F/A$
- make  $x$  the subject of  $y = x - a$
- make  $t$  the subject of  $v = u + at$
- make  $c$  the subject of  $a = b - c$

### E Now do Exercises A to C on Workbook page 23.

How do you make  $a$  the subject of the formula  $F = ma$ ?

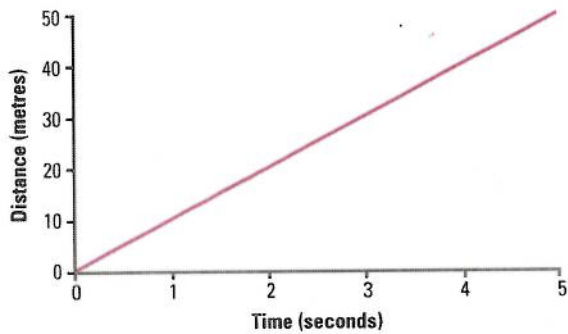
You divide both sides by  $m$ , which gives you  $F/m = mam/m$ . That's the same as  $F/m = a$ .



## Lesson 9: Information in graphs

**A** Look at the graph and complete the text with the words in the box.

straight second graph metres time



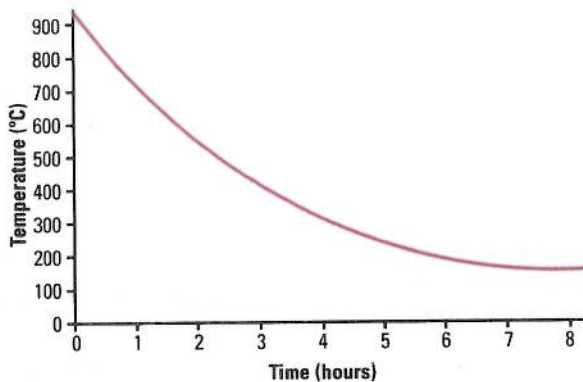
The relationship between quantities can be described in words, in a mathematical formula, or visually in a ① \_\_\_\_\_ . This graph shows the relationship between distance, ② \_\_\_\_\_ and velocity, which is expressed in the formula  $v = d/t$ . This is a ③ \_\_\_\_\_ line graph; its gradient is easy to see and shows a velocity of 10 ④ \_\_\_\_\_ per ⑤ \_\_\_\_\_ .

**B** Answer the questions about the graph in Exercise A.

If  $t = 2$ ,

1. how far has the object travelled?
2. how far will it travel in the next three seconds?
3. how far will it have travelled when  $t = 5$ ?
4. will the velocity have increased by the time  $d = 50$ ?

**C** Study the graph and the information. Then answer the questions.



The curve on this graph shows the change in temperature of a newly made steel component. Steel components are cooled slowly to make them stronger.

1. What is the quantity on the y axis?
2. What are the units on the x axis?
3. What is the scale on the x axis?
4. If the temperature is  $400^{\circ}\text{C}$  now, approximately how long has it been cooling?
5. When it is  $300^{\circ}\text{C}$ , will it be cooling faster or more slowly?
6. By how many degrees will the temperature have fallen after eight hours?

**D** Now do Exercises A and B on Workbook page 24.

## Lesson 10: Electricity

**A** In pairs, discuss how the words in each group of three are connected.

1. amp    volt    watt
2. battery    switch    wire
3. disconnect    earth    insulate
4. air-conditioning    calculator    fridge

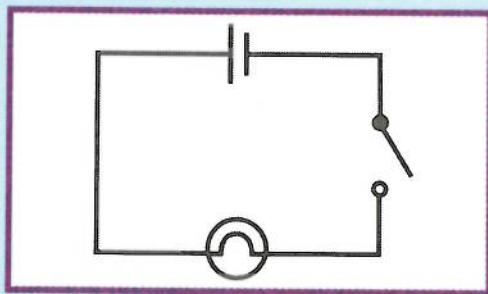
**B** Read this text quickly and put the three subheadings into the correct place.

CIRCUITS, ENERGY AND POWER    ELECTRICITY    UNITS AND FORMULAS

1

Electricity is a form of energy which can be converted into other forms of energy, such as heat or light. Electrical energy (symbol: E), like all other forms of energy, is measured in units called joules (J).

In electrical systems this energy travels through wires and other conductors. It is carried by very small particles called electrons. Electrons are subatomic particles which have a negative charge (Q is the symbol of electrical charge). In electrical circuits, they flow through a wire towards the positive charge at the other end. The unit which measures electrical charge is the coulomb (C).



The rate at which electrons flow through the conductor is called electric current (I). The strength of the flow is called the voltage (V). The moving electrons are slowed down by the conductor as they pass through it. This slowing down is called the resistance (R).

2

Electrical current (I) is measured in amperes or amps (A). One amp is a flow rate of one coulomb per second, and so current can be expressed by the following formula, where t = time in seconds:

$$I = Q/t.$$

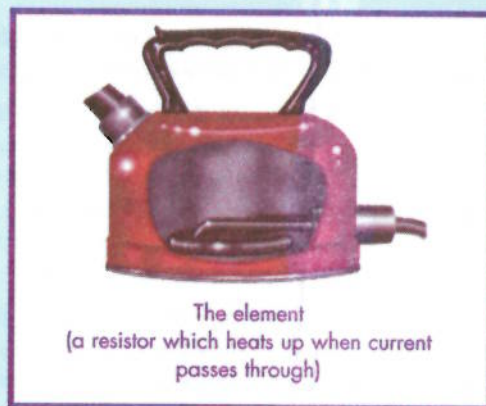
Voltage (or electromotive force) is measured in volts (V). When one joule of energy is needed to move one coulomb of charge between two points, the voltage between the two points is one volt. This is shown in the formula:

$$V = E/Q$$

The amount of resistance (R) in a conductor depends on the type and size of the conductor. The resistance is measured in ohms ( $\Omega$ ) because the relationship between voltage, current and resistance was discovered by Georg Ohm, a German physicist (1787–1854). Thanks to him we know the following formula:

$$R = V/I$$

3



The element  
(a resistor which heats up when current passes through)

When current flows around a circuit, energy is lost in the form of heat. The heat increases if the resistance is increased. That is how, for example, an electric kettle works. The element in the kettle is a resistor that heats up quickly when current passes through it.

All electrical appliances convert electrical energy to other forms of energy, such as heat, light or mechanical energy. The more energy they can convert in one second, the more powerful they are. So the formula for power (P) is:

$$P = E/t.$$

One joule of energy per second is called a watt (W). Larger units of power are measured in kilowatts (kW), which means 1,000 watts, or megawatts, which means 1,000,000 watts. Power is also related to current and voltage and can be calculated with the formula:

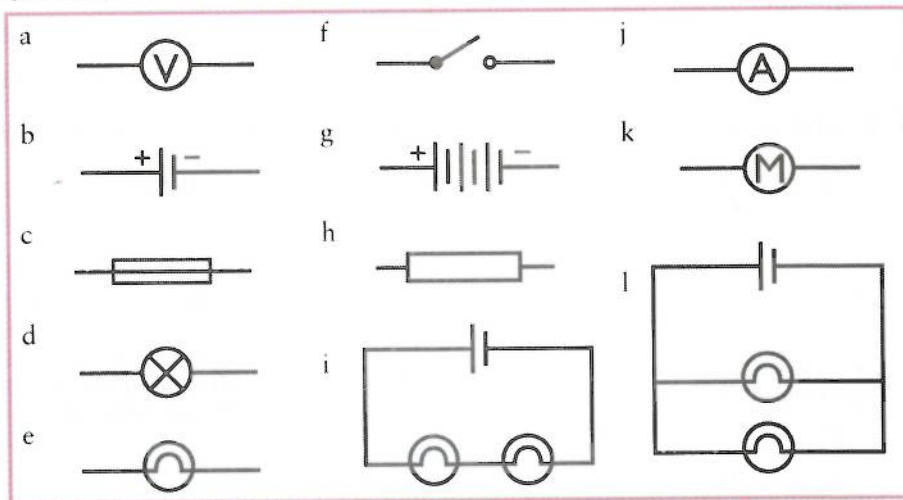
$$P = VI.$$

**C** Now do Exercises A to C on Workbook pages 24–25.

## Lesson 11: Circuits and symbols

### A Match the words to the symbols.

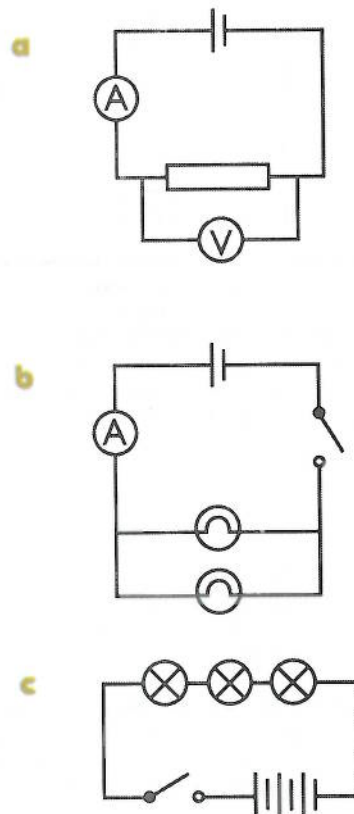
1. a cell or battery
2. a battery (of cells)
3. a signal lamp
4. a filament lamp
5. a switch
6. a resistor
7. a motor
8. a fuse
9. an ammeter
10. a voltmeter
11. a parallel circuit
12. a series circuit



### B Now do Exercise A on Workbook page 25.

### C Read these three descriptions of electrical circuits. Match the descriptions 1–3 to the correct three circuit diagrams a–e.

1. \_\_\_ This is a simple circuit diagram. It consists of a source of electricity, some lamps, a switch and an ammeter to measure the current flowing through the circuit. The source of electricity is a single cell, and the two lamps are filament lamps connected in parallel.
2. \_\_\_ This diagram shows one of the methods of connecting a number of lamps in a circuit. As you know, lamps and other appliances can be connected in series or in parallel. This diagram – consisting of a battery, three signal lamps, and a switch between the battery and the lamps – shows the lamps connected in series.
3. \_\_\_ This diagram shows how voltmeters and ammeters are connected in a circuit to measure its electrical properties. The two properties that can be measured directly are current, which is the flow of electricity, and voltage, which is the force pushing the electricity. Current is measured in amps, using an ammeter; and voltage is measured in volts, using a voltmeter. The circuit in this diagram consists of a cell connected to a resistor, with an ammeter connected in series, and a voltmeter connected in parallel across the resistor.



### D Now do Exercises B and C on Workbook page 25.

## Lesson 12: Listening: Listening for specific details and contrastive stress

- A** Look at the table and the cartoon. Answer the questions. Then compare your ideas with a partner.

Time difference between Tripoli and major world cities (Tripoli = 0)			
Beijing	+6 hours	London	-2 hours
Dubai	+2 hours	Los Angeles	-10 hours
Hong Kong	+6 hours	Nairobi	+1 hour
Islamabad	+3 hours	Paris	-1 hour
Lima	-7 hours	Sydney	+9 hours

1. Why are some parts of the world dark when it is midday in Libya?
2. How do time differences affect business?
3. What problems do people have after flying across many time zones? Why?
4. Work out the day and time in Hong Kong and Los Angeles when it is 9 a.m. on Wednesday in Tripoli.



- B** You are going to listen to an in-flight video presentation. Read the leaflet below. Then listen to part 1 and complete the advice.

### Dealing with jet lag

When you arrive at your destination, you will have passed through several time zones. Your watch and your body clock will be telling you different information. It will be a few days before your body clock adjusts to the new time. You can't avoid the problem, but you can reduce it by following these simple steps.

During your flight:

1. Soon after take-off, set your \_\_\_\_\_ to the \_\_\_\_\_ at your destination.
2. Do \_\_\_\_\_ on the plane.
3. \_\_\_\_\_ light \_\_\_\_\_.
4. \_\_\_\_\_ plenty of \_\_\_\_\_.

- C** Listen to part 1 again and make notes about the reasons for the four pieces of advice in Exercise B.
- D** Listen to part 2. In your notebook, make notes about the rest of the advice you hear.
- E** Work in pairs. Compare your notes from Exercise D. Use your notes to give your partner more advice about dealing with jet lag.
- F** When two things are contrasted, we stress the contrasting words. Listen and repeat. Practise saying the phrases in pairs.
1. Don't wait until you arrive. Do it before you arrive.
  2. Don't sleep in the day. Wait until night.
  3. Eat light food. Heavy food is not good.
  4. Light means day, and dark means night.

# Unit 4

## Great failures

### Lessons 1 & 2: Reading: Reading to retell information

#### 1. Before you read [Lesson 1]

**A** Work in pairs. Discuss the following.

1. the three best sportsmen in Libya
2. the three worst programmes on television
3. the three greatest scientists in history
4. the three worst films ever made

**B** Write these words in the correct column in the chart.

badly	best	great	well	worst	be good at	be not very good at	
mistake	right	wrong	fail	failure	pass	succeed	success
	successful	unsuccessful	ashamed of	proud of			

positive words	
negative words	

**C** Look at the pictures on page 43. Quickly read the title and the subtitles in red. Do you think this will be a humorous text or a serious text?

#### 2. While you read

**A** Read only the introduction to the text on page 43. With your partner, discuss what you think happened to the people (and the animal) in the pictures.

**B** Work in groups. Each group reads one of the stories on page 43. Discuss these questions with the other people in your group.

1. What is the title of the story?
2. Who or what is the story about?
3. What are the main details?
4. What happened in the end?

**C** Close your book. Make new groups. Tell your new partners about your story. Listen to your partners' stories and ask about anything you do not understand.

#### 3. After you read [Lesson 2]

**A** Now do Exercises A to C on Workbook pages 26–27.

# Great failures

Great scientists, world leaders, famous writers, singers and film stars all have a special talent. They are all specially good at something. Millions of pages are written about them in books, magazines and newspapers. But what about those who are specially bad at something? This page is for them.

## The worst driver in the world



This title is proudly claimed by a British woman who had 212 driving lessons, but could not pass her driving test. She failed her test 38 times in eight years. Her 39<sup>th</sup> test was not so bad, and she would have passed if she had not driven through a red light. She finally passed the test a month later.

## The longest failure to return a borrowed book



Many of us are slow to return things that we have borrowed. But first prize must go to Mr M Dodd, who borrowed a book from a library in 1823. He was supposed to return it three weeks later, but the book was not returned until 1968. Mr Dodd's grandson, who returned the book, explained, 'My grandfather was going to return it, but he died. I should've returned it earlier, but I kept forgetting.'

## The least successful weather report

A radio presenter in Saudi Arabia once announced, 'We are sorry that we cannot give you the weather forecast. We receive the weather forecasts from the airport, which is closed because of the bad weather.' The announcement ended, 'If the weather improves, we will give you the forecast tomorrow.'



## The worst burglar

A burglar broke into a house in Paris and stole a video and some silver. He was just going to leave when he felt hungry. In the kitchen, he found some of his favourite cheese. If he had left then, he would have been all right, but the kitchen was full of good things, which he ate quickly. After a time, he felt very sick. He wished he had not eaten so much so quickly and he lay down. The next thing he saw was a police officer. He had been asleep for five hours.



## The unluckiest lion

When a lion escaped from a circus in Italy, people screamed and ran. Then the lion saw a small boy and ran after him. That was a big mistake. The boy's mother was a big, strong woman, and the lion soon wished it had left the boy alone. It spent the next three weeks in an animal hospital and was afraid of women and small children for the rest of its life.



## Lesson 3: Vocabulary: Verb collocations

**A** Complete the table. Put the words from the box in the current column.

a mistake    work/homework    a break    a guess    sport    damage    220 kph  
 a choice    a haircut    a discussion    a problem    a suggestion    ~~a headache~~  
 an experiment    a drawing    your best    a drink    ~~a phone call~~    ~~a favour~~  
 a decision    breakfast    a rest    a noise    an appointment

make	do	have
a phone call	a favour	a headache

**B** What are the three forms of the verbs *make*, *do* and *have*? Complete the table.

infinitive	past simple	past participle
	made	
to do		
		had

**C** Complete the sentences with a phrase from Exercise A above. You will need to change the verbs *make*, *do* or *have* into the correct form.

**Example:** My hair's short because I've just had a haircut.

- I phoned this morning and \_\_\_\_\_ to see the doctor.
- I'm tired. I'm going to \_\_\_\_\_.
- This car can \_\_\_\_\_.
- Has the storm \_\_\_\_\_ much \_\_\_\_\_?
- We've been working for five hours and we haven't \_\_\_\_\_!
- OK, I've \_\_\_\_\_. I want that one.
- If I didn't know the answer, I just \_\_\_\_\_. Sometimes I was right.
- Scientists \_\_\_\_\_ for years before they found the answer.
- Can I borrow your mobile? I need to \_\_\_\_\_.
- I didn't feel very well. I \_\_\_\_\_ and a high temperature.



## Lesson 4: Grammar 1: How things could have been different

### 1. Conditional sentences (type 3)

#### A Study the grammar box.

We cannot change what happened in the past. But when we think about how events in the past could have been different, we use:

**if + past perfect, would have + past participle**

**Example 1:** The lady in the story drove through a red light, and so she failed her driving test.

*If she had not driven through a red light, she would have passed.*

**if + past perfect, would have + past participle**

You can change the order of the two parts of the sentence.

**Example 2:** The burglar in France ate too much and fell asleep.

*He would not have fallen asleep if he had eaten less.*

**would have + past participle ... if + past perfect**

#### B Change the form of the verbs to make correct sentences about the past.

1. If you/drive more carefully/you/not crash/the car.

\_\_\_\_\_

2. This/not happen/if you/listen to my advice.

\_\_\_\_\_

3. They/win/if they/play better.

\_\_\_\_\_

4. If the weather/not be so bad/we/go for a picnic.

\_\_\_\_\_

### 2. wish + clause

#### A Study the grammar box.

The verb *wish* is followed by the past perfect when referring to things in the past.

**Example 1 (past):** I'm sorry, I didn't know.

*I wish I had known.*

The verb *wish* is followed by the past simple when referring to things in the present.

**Example 2 (present):** I don't speak French.

*I wish I spoke French.*

#### B Look at the picture. Read the genie's offer. Write your three wishes in your notebook.

#### C Tell a partner your wishes, and explain your reasons.

**Example:** Student A: *I wish I had known it was your birthday.*

Student B: *Why?*

Student A: *Because if I had known, I would have bought you a gift.*

#### D Now do Exercises A and B on Workbook page 27.

You can have three wishes to change the past or the present.



**A** These phrases are from the stories in Lesson 1. What future plan did the person have when these things happened?

1. he died (Mr Dodd)
2. he felt hungry (the burglar)

**B** Read the grammar box and complete the sentences in it.

**The future in the past**

When we are talking about the past, sometimes we want to talk about something that was in the future at that time – something that had not happened yet. We can use *was/were going to*.

Complete the two sentences from the stories using *was/were going to*.

1. My grandfather \_\_\_\_\_ return it, but he died.
2. He \_\_\_\_\_ just \_\_\_\_\_ leave when he felt hungry.



**C** Study the pictures and complete the sentences using *was/were going to*. In which sentence can you use *just*?

1. Yesterday, Jamal \_\_\_\_\_ do some work, but he decided to do it later.
2. Before she went shopping, Zahra wrote a list of things she \_\_\_\_\_ buy.
3. The scientists didn't know what they \_\_\_\_\_ find.
4. Hajir \_\_\_\_\_ have a drink when an insect flew out of the glass.



**D** Rewrite these sentences using *was/were going to ...*, *but ...*

**Example:** We forgot to do it.

We *were going to* do it, *but* we forgot.

1. The car broke down, so we couldn't go shopping.
2. If I had had time, I would have done it.
3. The teacher told us not to go in.
4. We forgot to bring it.
5. I would have phoned you if I hadn't lost your number.
6. We had just turned on the TV when our cousins arrived.



**E** Now do Exercise A on Workbook page 28.



## Lesson 6: Speaking: Telling a story from pictures

**A** The pictures show a day last year in the life of Salim, who is not good at doing things on time. With a partner, discuss the pictures. Why is Salim a very lucky man?

**1** On Sunday in his hotel room ...



**2** On Monday morning ...



**3**



**4**



**5**



**6**



**7**



**8**



**9** The next day ...



**B** How could Salim use these phrases to tell his story? Discuss with a partner.

1. I was going to ...
2. I didn't ... until ...
3. I wished ...
4. By the time I ...
5. If I had ...

**C** Work in pairs. Student A, you are Salim. Tell your story. You must use the expressions in Exercise B above. Student B, for each part of the story that Salim tells you, ask a question. Then switch roles.

**Example:** Student A: *The traffic was very heavy. I wished we had gone another way.*  
Student B: *Why didn't you do that?*

**D** Now do Exercises A to D on Workbook pages 28–29.

## Lesson 9: Properties of materials

**A** In pairs, write eight materials in your notebook. Then think of adjectives to describe the property of the material.

Example: glass – transparent

**B** Match the adjectives 1–14 to the definitions a–n. The first one has been done for you.

- |                        |                                     |   |
|------------------------|-------------------------------------|---|
| 1. corrosion resistant | <input checked="" type="checkbox"/> | a) allows water to pass through                                 |
| 2. ductile             | <input type="checkbox"/>            | b) burns easily   |
| 3. elastic             | <input type="checkbox"/>            | c) can stretch and return to its original shape                 |
| 4. flammable           | <input type="checkbox"/>            | d) does not break under pressure                                |
| 5. flexible            | <input type="checkbox"/>            | e) resistant to surface damage                                  |
| 6. a good conductor    | <input type="checkbox"/>            | f) can be rolled or hammered into a new shape                   |
| 7. hard                | <input type="checkbox"/>            | g) does not break when hit                                      |
| 8. malleable           | <input type="checkbox"/>            | h) can be pulled or stretched without breaking                  |
| 9. non-toxic           | <input type="checkbox"/>            | i) is not damaged by reaction with chemicals in the environment |
| 10. porous             | <input type="checkbox"/>            | j) allows electricity or heat to pass through                   |
| 11. reactive           | <input type="checkbox"/>            | k) can bend without breaking                                    |
| 12. strong             | <input type="checkbox"/>            | l) allows light to pass through                                 |
| 13. tough              | <input type="checkbox"/>            | m) is not dangerous to eat, drink or breathe                    |
| 14. transparent        | <input type="checkbox"/>            | n) reacts easily with other chemicals                           |

**C** In your notebook, write an example of each property in Exercise A.

Example: corrosion resistant: glass

**D** In pairs, discuss why the makers of each item chose that material. Use words from Exercise A in your answers.



item: *electrical wire*  
material: *copper*



item: *hammer head*  
material: *medium-carbon steel*



item: *test tube*  
material: *glass*



item: *tooth cap*  
material: *gold*



item: *fishing net*  
material: *nylon*



item: *vehicle tyre*  
material: *synthetic rubber*

**E** Now do Exercises A to C on Workbook page 30.

## Lesson 10: Hazards at work

**A** Below are the eight most common causes of industrial accidents. In pairs, rank them in order (1 = most common, 8 = least common).

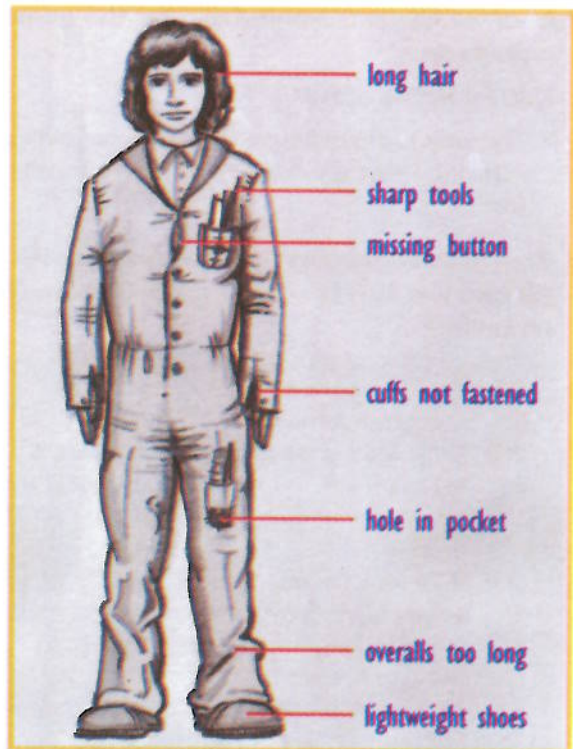
- \_\_\_ objects falling on people
- \_\_\_ transport
- \_\_\_ falling
- \_\_\_ handling and lifting things
- \_\_\_ using hand tools
- \_\_\_ electric shock
- \_\_\_ stepping on or walking into objects
- \_\_\_ machines

**B** Work in pairs. Look at the hazards in the picture. Discuss what injuries could result.

*Example: Long hair can get caught in moving machinery such as drills and lathes. The hair and scalp can be torn away. Brain damage is also possible.*

**C** Read these accident reports, and make sentences about them beginning with the given words.

- Nabil dropped a heavy weight on his foot. He did not have safety shoes on, so it broke his big toe.  
Nabil should have \_\_\_\_\_.
- Yunis put his foot on this nail. Fortunately, he had safety boots on, so he was not injured.  
If Yunis hadn't \_\_\_\_\_.
- Zahra was just going to turn off a machine when her loose cuff got caught in the machine. Her hand was badly cut.  
Zahra wished she \_\_\_\_\_.
- Yasir was climbing a ladder when a screwdriver fell through a hole in his pocket. It just missed a man who was standing below.  
If the screwdriver \_\_\_\_\_,  
it might have injured him.
- Zainab was operating a mixing machine when her hair got caught. Luckily, Hajir turned off the machine before Zainab was injured.  
If Zainab had tied her hair back, it \_\_\_\_\_.  
She would have been injured if \_\_\_\_\_.
- Khalid's overalls were too big. He was told to change them immediately, but he didn't. Later that afternoon, his foot got caught and he tripped. He crashed into a heavy box, which fell and injured Abdusalam.  
Khalid was \_\_\_\_\_ to change his overalls.  
If he had changed them, \_\_\_\_\_ caused the accident.

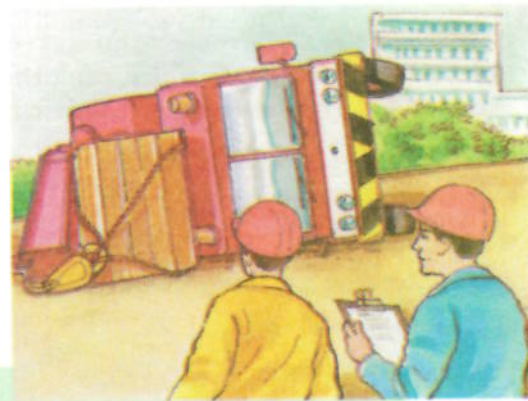


**D** Now do Exercises A and B on Workbook pages 30–31.

## Lesson 11: Accident report

**A** Look at the picture and discuss the questions with a partner:

1. What has happened?
2. The safety officer has to write a report about the accident. What questions might he ask the site supervisor first?



**B** Read this conversation between the site supervisor (S) and the safety officer (SO). Choose the correct pictures.

- SO: What happened here?  
 S: The crane turned over. The driver's shaken up, but nothing too serious.  
 SO: Do you know what caused the accident?  
 S: I didn't see it, but one of the men said the crane went over when it started lifting. He said the crane was on a slope. I expect the load swung to one side and pulled the crane over.  
 SO: Why was the crane operating on a slope? That's against the safety rules.  
 S: I don't know. It was supposed to be on the flat ground over there.  
 SO: It's not a very steep slope. It shouldn't have turned the crane over. Has anyone checked the tyre pressures?  
 S: They were checked yesterday and they were correct, but I've just checked them again and one of the tyres is low.  
 SO: If the crane was on a slope and a tyre was low on one side, it would be very dangerous. I think that's what caused the accident.

1. the driver



2. the accident



**C** Now do Exercises A to D on Workbook page 31.

**A** Talk in pairs. How many clubs do you know? Discuss them using these topics.

1. the name of the club
2. the members
3. meetings and activities
4. the club's history
5. the success of the club (and the reasons for this)

**B** Look at the poster and discuss these questions.

1. What kind of club could this be?
2. What kind of people would join this club?



**C** Listen to the first part of a conversation about the club, which was started a few years ago. Are any of your ideas from Exercise B mentioned?

**D** Read these notes. Then listen again to the first part of the conversation and complete the gaps.

Three of the club's members:

1. a not very good \_\_\_\_\_
2. somebody who could not \_\_\_\_\_
3. a fisherman who couldn't \_\_\_\_\_

The first meeting was at a \_\_\_\_\_ restaurant

Two activities:

1. a \_\_\_\_\_
2. an \_\_\_\_\_ exhibition

**E** Read these questions. Then listen twice to the second part of the conversation to answer them.

1. How long did the club continue? \_\_\_\_\_
2. What happened when the club became famous? \_\_\_\_\_
3. Why was that bad for the club? \_\_\_\_\_
4. What happened in the end? \_\_\_\_\_

**F** Discuss these questions in pairs.

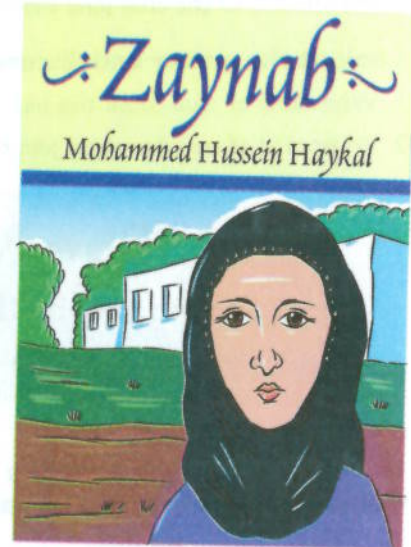
1. Do you think the club was a success or a failure?
2. Do you think it should have stayed open? Why/Why not?
3. Would you have joined the club? Why/Why not?

# Unit 5

## Literature

### Lessons 1 & 2: Reading: Identifying styles of writing

#### 1. Before you read [Lesson 1]



#### A Discuss these questions in groups.

1. Do you read when you travel? Why?/Why not?
2. Do you prefer to read fiction or non-fiction?
3. Who are your favourite authors writing in Arabic?
4. Have you read any good books lately? What were they about?
5. What kind of books do you prefer? Number the types of books 1-6.  
(1 = the type you like best and 6 = the type you like least.)

\_\_\_ historical novels

\_\_\_ science fiction novels

\_\_\_ thrillers


\_\_\_ travel writing

\_\_\_ biographies

\_\_\_ novels about modern life


#### 2. While you read

#### A Now do Exercise A on Workbook page 32.



### Mousa

I enjoy reading a good story. I mean an exciting story with plenty of action. I've tried reading other kinds of novel, but I prefer this kind. They're relaxing and easy to read. Sometimes I feel like reading at home, and I often read on the bus. I travel a lot by bus and the journeys can be boring, so it's good to have something to read.



### Salsabil

Reading a good novel is one of the things I enjoy most. I try to do some reading most days, so I get through quite a lot of books. Sometimes I don't know what to read next, so I ask a friend to recommend a good book. Before choosing a book, I read a few pages to see if I like it. I like novels about people. I think the characters and their thoughts are more interesting than what happens in the story.



## Reading

- B** Read the two extracts from the novels below quickly. Which would Salsabil prefer? Which would Mousa prefer? Why?
- C** In pairs, discuss books you would recommend to Mousa and Salsabil. Give reasons for your choice.

1

### Chapter 1

A sound woke him. He raised himself on his elbows and listened, holding his breath. But he could hear nothing. It was incredibly quiet, unnaturally so. Then he noticed that the fan had stopped. He got out of bed, untucking the mosquito net, and took the gun from the cabinet drawer. His bare feet made small, tacky noises crossing the floor and his elbow cracked as he reached for the door handle. The silence was so intense without the fan that the smallest sound was exaggerated. He opened the door a few centimetres and peered cautiously into the long, high-ceilinged living room. The big windows let in the dawn light and the room seemed less shadowy than the bedroom. But just as dead, just as silent.

2

### CHAPTER 1

Mother died today. Or maybe yesterday. I can't be sure. The telegram from the Home says, 'Your mother passed away. Funeral tomorrow. Deep sympathy.' Which leaves the matter doubtful. It could have been yesterday.

The Home for Aged Persons is about 100 kilometres from Algiers. If I take the 2 o'clock bus, I should get there well before nightfall. Then I can spend the night there and be back here by tomorrow evening. I have fixed up with my employer for two days' leave. Obviously in the circumstances, he couldn't refuse. Still, I had an idea he looked annoyed, and I said, without thinking, 'Sorry sir, but it's not my fault, you know'.

### 3. After you read [Lesson 2]

- A** Now do Exercises A to F on Workbook pages 32–33.

## Lesson 3: Vocabulary: Nouns and adjectives ending with -ing

**A** Look at the posters. Complete each caption with one word.



**B** Read the information and check your answers to Exercise A.

### -ing form or gerund

We sometimes use the -ing form of verbs like a noun. This form is called a *gerund*.

We can use the gerund as the subject of a sentence.

**Examples:** *Reading is good for you.*

*Driving too fast is dangerous.*

We can use the gerund as the object after certain verbs. (See Lesson 5.)

**Examples:** *I enjoy reading a good story.*

*I've tried reading other kinds ...*

When a verb comes directly after a preposition, it is usually in the -ing form.

**Examples:** *Before choosing a book, I ...*

*I said it without thinking.*

**C** Now do Exercise A on Workbook page 33.

**D** Look again at the texts about Mousa and Salsabil on page 54 and complete these sentences.

1. Mousa enjoys reading an \_\_\_\_\_ story with plenty of action.
2. He thinks these kinds of stories are easy to read and \_\_\_\_\_.
3. He thinks that journeys by bus can be \_\_\_\_\_.
4. Salsabil thinks that the characters in a book are more \_\_\_\_\_ than the story.

**E** Now do Exercises B to E on Workbook pages 33–34.

**A** Underline the infinitive form in this sentence from Lesson 1.

It's good to have something to read.

**B** Study the grammar box.

**Adjectives followed by the infinitive**

Adjectives which describe reactions and feelings are often followed by the infinitive form of the verb.

**Examples:** Hello! How are you? It's good **to see** you!  
I'm afraid **to tell** you that you've failed the exam.

Many other adjectives are also followed by the infinitive.

**Examples:** Are you ready **to start**?  
These grapes are only good **to eat** when they are ripe.

**C** Now do Exercise A on Workbook page 34.

**D** Study the grammar box below. Match these sentences from Lesson 1 with the uses of the infinitive in the grammar box.

1. I try to do some reading most days. \_\_\_\_
2. Sometimes I don't know what to read next. \_\_\_\_
3. I read a few pages to see if I like it. \_\_\_\_

**Nouns, pronouns and question words followed by the infinitive**

a) We use the infinitive form after a noun or a pronoun to explain the purpose of something.

**Examples:** Pass me a knife **to cut** this bread, please.  
Can you give me something **to stop** this headache?

b) We use the infinitive after certain verbs. (See Lesson 5.)

**Examples:** She's decided **to study** Biology.  
I'm trying **to find** the post office.

c) We sometimes use the infinitive after question words (*how, where, what, when*).

**Examples:** Do you know **how to drive**?  
The man at the tourist office told me **where to go**.

**Note:** We don't use the infinitive after *why*.

**E** Now do Exercises B and C on Workbook pages 34–35.

**F** Sumaya's employer has asked her to write a letter to a customer, but she is very lazy. Complete her excuses with words from the box.

send   how   spell   where   use   what   find   how   write   where

1. I don't know how to spell his name.
2. I've forgotten \_\_\_\_\_ to \_\_\_\_\_ the computer.
3. You haven't told me \_\_\_\_\_ to \_\_\_\_\_ the letter.
4. I don't know \_\_\_\_\_ to \_\_\_\_\_.
5. I don't have any paper and I don't know \_\_\_\_\_ to \_\_\_\_\_ it.

## Lesson 5: Grammar 2: -ing or infinitive?

### A Study the grammar box.

#### -ing or infinitive?

You have already looked at some verbs which always end with *-ing* and some which are followed by the infinitive (*to ...*).

**Examples:** I enjoy **reading** a good story.

We've arranged **to meet** on Tuesday.

The best way to learn whether a verb is followed by *-ing* or the infinitive is through practice. You can also write the verbs in groups to help you remember. Here are some common verbs for each pattern.

**verb + -ing:** avoid, be worth, enjoy, feel like, finish, imagine, keep, look forward to, mind, practise, risk

**verb + infinitive:** arrange, afford, choose, decide, expect, fail, hope, learn, plan, prepare, seem, want

### B Now do Exercises A and B on Workbook page 35.

### C Study the information in the grammar box.

#### -ing and infinitive with different meanings

After *remember* and *forget*, we can use either *-ing* or the infinitive, but the meaning is different.

We use *-ing* when we are looking back in the past at things that have already happened.

**Examples:** I can remember **learning** to swim.

I'll never forget **taking** my first driving lesson.

We use the infinitive when we are looking forward into the future, talking about things that usually happen or talking about a point in the past when something has not happened.

**Examples:** Please remember **to phone** me.

You forgot **to buy** the magazine.

### D Now do Exercise C on Workbook page 35.

### E Study the information in the grammar box below. Then find two examples of sentences with *try* in the texts about Mousa and Salsabil on page 54.

When we use *try* with *-ing* and the infinitive, there is also a difference in meaning.

We use *-ing* after *try* when we talk about doing something to see what the result will be.

**Example:** I tried **changing** the battery, but it still isn't working.

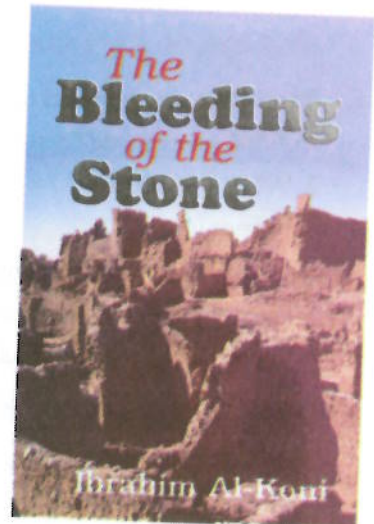
We use the infinitive after *try* when we talk about making an effort to do something.

**Example:** We tried **to lift** the box, but it was too heavy.

### F Now do Exercise D on Workbook page 35.



## Lesson 6: Speaking: Talking about books



### A Complete the conversation with words from the box.

exciting    set    called    about    written    by    character    recommend

**Ahmed:** Hi, Khalid. What are you reading?

**Khalid:** Actually, I've just finished it. It's ① \_\_\_\_\_ 'The Bleeding of the Stone'.

**Ahmed:** I've never heard of it. Who's it ② \_\_\_\_\_?

**Khalid:** Ibrahim AL-Koni.

**Ahmed:** So, what is it ③ \_\_\_\_\_? Stones?

**Khalid:** Not exactly. It's about the effect humans have on the natural world, really. It's ④ \_\_\_\_\_ in the desert in Libya.

**Ahmed:** And what's the storyline?

**Khalid:** Well, the main ⑤ \_\_\_\_\_ is called Asouf. He's a Bedouin who lives in a very remote part of the desert. He's a kind of expert on the area and he's the only one who knows where some really rare sheep are. Then these two hunters meet Asouf and they want him to show them where the *waddan* are.

**Ahmed:** So would you ⑥ \_\_\_\_\_ it?

**Khalid:** Yes, I definitely would. It's an ⑦ \_\_\_\_\_ story and it also made me think. And it's really well- ⑧ \_\_\_\_\_. There are some beautiful descriptions of the desert. You should read it.

**Ahmed:** It does sound good. Can I borrow it?

### B Read the information in the box below. Practise saying the phrases in pairs.

#### Giving opinions about a book

There are a lot of ways to tell someone what you thought of a book.

When you like a book, you can say:

*I couldn't put it down.*

*It's well/brilliantly written.*

*I would (definitely) recommend it.*

*You should read it.*

When you don't like a book, you can say:

*It's good in parts, but ...*

*It's not really my kind of book.*

*It's not very well-written.*

*I (definitely) wouldn't recommend it.*

*It's not worth reading.*

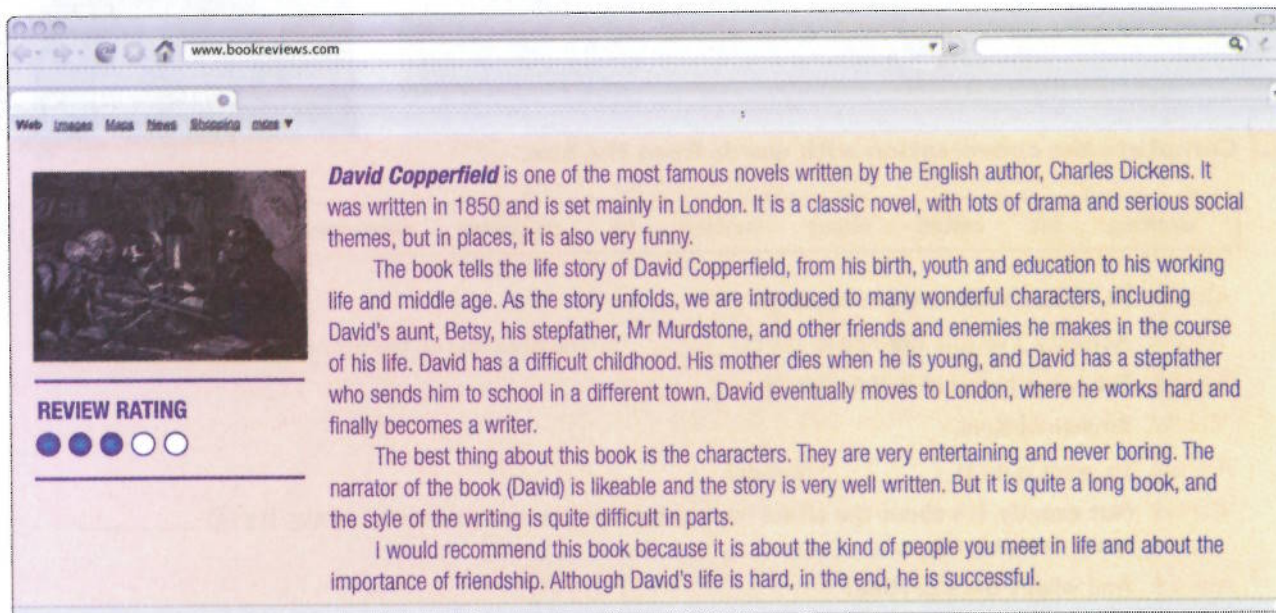
### C Now do Exercises A to D on Workbook page 36.

## Lesson 7: Writing: A book review

### 1. Preparation for writing

#### A Read the review and answer the questions.

1. Who wrote *David Copperfield*?
2. What is it about?
3. Where is it set?
4. Does the reviewer recommend the book?
5. Does the book have any bad points?
6. Based on this review, would you like to read *David Copperfield*?



**David Copperfield** is one of the most famous novels written by the English author, Charles Dickens. It was written in 1850 and is set mainly in London. It is a classic novel, with lots of drama and serious social themes, but in places, it is also very funny.

The book tells the life story of David Copperfield, from his birth, youth and education to his working life and middle age. As the story unfolds, we are introduced to many wonderful characters, including David's aunt, Betsy, his stepfather, Mr Murdstone, and other friends and enemies he makes in the course of his life. David has a difficult childhood. His mother dies when he is young, and David has a stepfather who sends him to school in a different town. David eventually moves to London, where he works hard and finally becomes a writer.

The best thing about this book is the characters. They are very entertaining and never boring. The narrator of the book (David) is likeable and the story is very well written. But it is quite a long book, and the style of the writing is quite difficult in parts.

I would recommend this book because it is about the kind of people you meet in life and about the importance of friendship. Although David's life is hard, in the end, he is successful.

#### B Think of a book you have read which you like or dislike very much. Make notes in the table below.

title	
author	
date	
kind of book	
setting	
main characters	
storyline	
your opinion	
your recommendation	

### 2. Writing

#### A Use your notes to write a paragraph about the book in your notebook. Give information about the book, briefly tell the story and give your opinion. Use phrases from Lesson 6.

## Lesson 8: Under the sea

- A** In pairs, make a list of different ways that people can travel in or on water.
- B** Here is a page from a famous novel written in 1870. Read quickly and guess how the people are travelling. What is the name of the vessel on which they are travelling?

'Sir,' said Captain Nemo, showing me the instruments on the walls. 'These are for the navigation of the *Nautilus*. They indicate my position and direction in the middle of the ocean. Some are known to you, such as the thermometer, which gives the internal temperature of the *Nautilus*; the barometer, which indicates the pressure of the air and predicts changes of weather; the hygrometer, which marks the humidity of the atmosphere; the compass, which guides my course; the sextant, which shows the latitude by the altitude of the sun; chronometers, by which I calculate the longitude; and telescopes for day and night, which I use to examine the points of the horizon, when the *Nautilus* rises to the surface of the waves.'

'These are the usual nautical instruments,' I said, 'But the others suit the special needs of the *Nautilus*. This dial with the movable needle is a manometer, isn't it?'

'It is. It measures the pressure of the water outside the *Nautilus*, and so it gives our depth at the same time.'

'What are these other instruments for?'

He was silent for a few moments, then he said, 'There is a powerful form of energy, which is obedient, rapid and easy, which can be used for almost anything, and is most important here. Everything is done with it. It gives light, warmth, and it drives machines. This energy is electricity.'



A scene from the film of *Twenty Thousand Leagues Under the Sea*

'Electricity?' I said in surprise. 'But Captain, the *Nautilus* moves rapidly; nobody has ever succeeded in producing much power from electricity.'

'Professor,' said Captain Nemo, 'that has been true until now. However, my electricity is much more powerful. You know what sea water is composed of: sodium chloride is a large part of it. I extract this sodium from the sea water and I use it to make electricity. The ocean gives me everything I need; it produces electricity, and electricity gives heat, light, motion, and, in a word, life to the *Nautilus*.'

Adapted from *Twenty Thousand Leagues Under the Sea* by Jules Verne

- C** Scan the text for names of instruments and match the instruments with these functions.

1. measures air pressure and predicts weather changes \_\_\_\_\_
2. indicates direction \_\_\_\_\_
3. shows latitude \_\_\_\_\_
4. measures depth \_\_\_\_\_
5. measures temperature \_\_\_\_\_
6. measures atmospheric humidity \_\_\_\_\_
7. measures longitude \_\_\_\_\_

- D** Now do Exercises A to C on Workbook page 36.

## Lesson 9: Incandescent light

### A In pairs, answer these questions.

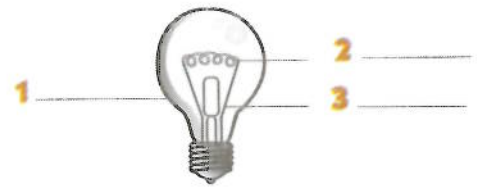
1. What do you remember about the extract that you read in the last lesson?
2. What was the novel called?
3. When was it written?
4. What did it predict?

### B Read this extract from the novel and guess what the professor saw.

Our prison was suddenly lighted. In its whiteness and intensity, I recognized that electric light which played round the submarine boat. After shutting my eyes involuntarily, I opened them and saw that this luminous agent came from a half globe, unpolished, placed in the roof ...

### C Read the text and label the parts of the light bulb.

A light bulb works by incandescence, which means glowing when heated. An electric current flows through the wires to the filament, heating it up and making it glow. The light output is measured in lumens or watts. The filament is inside a glass envelope. This is sealed, and there is a slight vacuum inside. That means there is not much oxygen, so the filament can get hot without catching fire.



### D Look at the light bulbs a-f below and try to put them in chronological order. In pairs, compare your ideas.

<p><b>a</b></p> <p>filament</p> <p>wires</p> <input type="checkbox"/>	<p><b>b</b></p> <p>glass envelope</p> <p>filament</p> <p>wires made of _____</p> <input type="checkbox"/>	<p><b>c</b></p> <p>filament (fine)</p> <input type="checkbox"/>
<p><b>d</b></p> <p>element (tungsten)</p> <input type="checkbox"/>	<p><b>e</b></p> <p>improved</p> <p>(2-3 lumens per watt)</p> <input type="checkbox"/>	<p><b>f</b></p> <p>inert</p> <input type="checkbox"/>

### E Now do Exercises A to C on Workbook page 37.



## Lesson 10: Moving to faraway places

**A** What problems would people need to overcome in order to live on another planet? In pairs, compare ideas.

**B** Look at the phrase below and decide which sentence a), b) or c) is true for you.

a *Dyson Sphere*

a) I know exactly what it is and can explain it to my partner.

b) I have no idea what it is.

c) I have heard of it, but I don't know much about it.

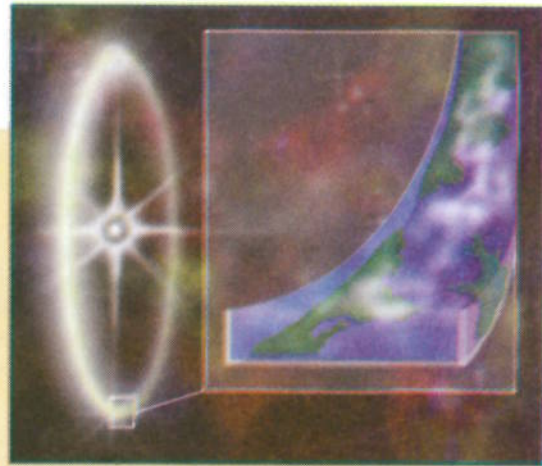
**C** Read the text and answer these questions.

1. What is a Dyson Sphere?
2. Which type of Dyson Sphere is shown in the picture?
3. Is it fact or fantasy?

In addition to fictional books, non-fiction such as *Star Maker* by Olaf Stapledon, *Ringworld Engineers* by Larry Niven, and *Across a Billion Years* by Robert Silverberg all look at the Dyson Sphere. In the book *Relics* from the *Star Trek: The Next Generation* series, the chief on the Starship Enterprise discovers a Dyson Sphere. In the story, he is rescuing an older spaceship that had crashed into the sphere.

The idea of Dyson Spheres originated in 1959 when the physicist Freeman Dyson proposed that a sphere-shaped shell could enclose a volume of space about 150 million kilometres in radius – the size of a planetary orbit. The 'shell' would not be continuous and solid, but made of orbiting structures. It would rotate, providing artificial gravity on the inside surface of the sphere.

Science fiction writers took Dyson's idea to mean a solid shell around a star, with an inhabitable surface on the inside. In his *Ringworld* series of novels, writer Larry Niven suggested a variation – a rotating ring around a star, 150 million kilometres in radius, several thousand kilometres wide with a wall 250 kilometres tall on each side to keep the atmosphere from spilling into space.



The amount of energy and space would be more than enough for the growing needs of humans. By building artificial habitats around the sun, all energy could be used. Another possibility would be to store energy for the future.

Constructing a continuous ring or shell would require strong materials and supertechnology far in advance of our present knowledge. Dyson calculated that there was enough matter in the solar system for a shell three metres thick. However, most matter in the solar system is helium and hydrogen, which are not usable as building materials. Apart from problems of materials and construction, problems of gravity, climate and temperature would need to be solved for the Dyson Sphere to become a reality.

**D** Read the text again quickly and circle the names of people and the titles of books.

**E** Now do Exercises A to C on Workbook 37–38.

## Lesson 11: Holograms

### A In pairs, discuss these questions.

1. What are holograms?
2. What are they used for?

### B Read the text and choose one of the headings below for each paragraph.

- a) More than a photo
- b) What you see
- c) Fact or fiction?
- d) Popular theme

## Holograms: fact and fantasy

1. \_\_\_\_\_  
Holograms appear in many science fiction books. In these books, holograms are objects or people made of light, like images on a film. But unlike film images, these holograms are three-dimensional and can move in the real world. The first hologram was in E.M. Forster's *The Machine Stops* in 1909. In this story, people used a machine like a telephone and were able to see glowing blue three-dimensional images of each other. In the modern *Star Trek* books, the spaceship has a 'holodeck' ~ a large room where people go to relax. In this room, a computer can create holographic places and people that seem completely real. One *Star Trek* story is about the problem of a holographic character who becomes conscious of his own existence and does not want to be switched off.

2. \_\_\_\_\_  
In stories like these, science fiction takes scientific reality and then takes it a step further. In reality, we cannot yet create holograms that exist independently of a flat photographic plate. Real holograms are just flat pictures with some three-dimensional properties and an appearance of depth.

The ability to store three-dimensional pictures on a two-dimensional surface has various uses. For example, some dentists use holograms to store dental records of their patients: a holographic picture of a patient's teeth is almost as good as a plaster model and needs less storage space.

3. \_\_\_\_\_  
When you look at a hologram and move your head, you can see around the object. You can see the object from different points of view. Sometimes the object in a hologram seems to be in front of the flat surface, but if you put your hand through the object, you feel nothing because the image is like a ghost.

4. \_\_\_\_\_  
As in photography, to make a hologram there must be light to illuminate the scene and activate the photographic chemicals. With photos, light can come from a variety of sources such as the sun, candles or a light bulb. However, with holograms, there must be two beams – the reference beam and the object beam. For this, a laser light is used, which provides a narrow beam of light that is split into two.



The holodeck from *Star Trek: The Next Generation*

### C Now do Exercises A to C on Workbook pages 38–39.

## Lesson 12: Listening: Listening for detail and consonant clusters

**A** Jenny is choosing a book. She is looking at the English translation of a well-known Arabic novel. Make a list of questions she might ask her friend Zahra.

**B** **1** Listen to part 1 of Jenny and Zahra's conversation and choose the best way to complete the sentences.

- The author of the novel is:  
(a) European (b) Arab (c) American
- The setting of the novel is:  
(a) Algiers (b) London (c) Cairo
- The novel was written in:  
(a) the 1980s (b) the 1960s (c) the 1950s
- The novel is about:  
(a) old ideas and new ideas (b) education (c) politics
- The main characters are:  
(a) the children (b) the father and mother (c) the whole family



**C** **2** Listen to part 2. Answer the questions.

- Zahra gives four examples of family dramas. What are they?
- Why does the book give the reader a wonderful picture of life at the time?
- What problem do the girls in the story have?
- Does the book have a happy ending?
- Does Jenny buy the book? Why/Why not?

**D** **3** Listen to the whole conversation again. Complete the review with information about the book.

This novel, set in the early part of ① \_\_\_\_\_, is about the conflict between ② \_\_\_\_\_ and change. It tells the story of a traditional Muslim ③ \_\_\_\_\_, the political struggles and social ④ \_\_\_\_\_ of the time, and how these changes affect the family. The book is brilliantly ⑤ \_\_\_\_\_ and is well worth ⑥ \_\_\_\_\_.

**E** **4** Listen to these phrases, and especially to the sounds of the underlined letters. Then listen again and repeat. Be careful not to put any sound between the consonants.

- an English translation
- a traditional Muslim family
- problems
- prisoners
- he's very strict
- political struggles

# Unit 6

## e world of sport

### Lessons 1 & 2: Reading: Identifying topic sentences

#### Before you read [Lesson 1]

In pairs, discuss these questions.

1. Are you a football fan? Do you hate football or can you take it or leave it? Why?
2. Match these football teams to their countries.

football team	country
Al-Afriqi Darnah	Italy
Al-Hilal	Libya
Al-Ahly	England
Estudiantes	Egypt
Manchester United	Saudi Arabia
AC Milan	Argentina

3. Do you think some sports should be for men only, or for women only?

Talk to your partner. Discuss the meaning of these words.

crowd	dressing room	half-time	league	manager	match
	pitch	player	referee	spectator	score

Complete the table. Use the words from the box in Exercise B.

people	things
player	

#### While you read

Look at the text on page 67. Read the first sentence of each paragraph.

Cover the text. In pairs, answer the questions.

1. What is the text about?
2. The text contains some true stories. Where is the longest story in the text?

The title of the text is *Fair play?* Discuss these questions with your partner.

1. In the rules of football, what is fair play? What is unfair play?
2. Is it fair to try to trick the referee?

#### After you read [Lesson 2]

Now do Exercises A to D on Workbook page 40.

# Fair plays?

Given the choice of being a football player, a spectator or a referee, how many people would choose to be a referee? In Tunisia, referees have been chased off the pitch by the crowd. In Zimbabwe, a referee was almost stoned to death, and in Colombia, referees have been shot by spectators.

Even if spectators are peaceful, they can make the referee's job difficult. In the 1982 World Cup, a senior Kuwaiti official walked onto the pitch, accused the referee of being unfair and tried to take over his job. 5

A referee once said, 'People have offered to pay me if I help their team, and people have threatened to hurt me if I don't. It's part of the job.'

Sometimes players try to trick the referee. In the 1991 European Cup, the Italian team AC Milan were losing 1-0 when a light above the pitch broke. It was three minutes before the end of the game. The Italians refused to continue the game, claiming that there was not enough light. This was not true. They just wanted to play the game again another day. The referee realized this and ordered them to finish the game, which they lost. 10

One of the most famous tricks happened during a game in South America. It involved two top teams from Argentina, Estudiantes and Velez. By half-time, neither team had scored. But during half-time, four loud explosions were heard in the Velez team's dressing room. The Velez manager came out and announced that someone had thrown four fireworks in through the dressing room windows. He said that some of his players were injured and he insisted that his team could not play the second half. He argued that the match should be given to them. If this happened, Velez would win the league title. 15

The referee asked to see the injured players, but the Velez manager refused. The Velez team were just going to leave when the doctor arrived and insisted on seeing the players. One player claimed he couldn't hear anything because of the loud explosion. However, he could answer the doctor's questions without difficulty. The other players were fine. The police later informed the Argentinian Football Association that the dressing room windows had been opened from inside. 20

In the end, the AFA decided that Velez had probably tried to cheat and the game should be finished another day. It was, and Estudiantes won 1-0. 25



## Lesson 3: Vocabulary: Connecting words

### A Match the words 1–6 to the words a–f.

- |                |                          |                  |
|----------------|--------------------------|------------------|
| 1. as a result | <input type="checkbox"/> | a) alternatively |
| 2. then        | <input type="checkbox"/> | b) also          |
| 3. so that     | <input type="checkbox"/> | c) after that    |
| 4. that        | <input type="checkbox"/> | d) so            |
| 5. and         | <input type="checkbox"/> | e) which         |
| 6. or          | <input type="checkbox"/> | f) in order to   |

### B Look at the language box. Correct these sentences.

1. Because I liked sports, so I joined the club.
2. Although she doesn't have much time, but she practises hard.
3. As you know, that I am not very good at football.

We only need one connecting word or phrase in a sentence.

**Incorrect sentence:** *Whereas a rugby team has fifteen players, but a football team has only eleven.*

There are two correct ways to say this.

1. *Whereas a rugby team has fifteen players, a football team has only eleven.*
2. *A rugby team has fifteen players, but a football team has only eleven.*

### C Study these sentences. Choose a or b in each case to complete the sentence.

1. My parents encouraged me to keep trying, and \_\_\_\_\_, I got into the team.  
a) as a result      b) because
2. We watched the match and \_\_\_\_\_ we went home.  
a) then      b) after
3. \_\_\_\_\_ two of our best players were injured, we won the game.  
a) However      b) Although
4. We won the first game, \_\_\_\_\_ was very encouraging.  
a) that      b) which
5. Khalid plays for the first team \_\_\_\_\_ his brother plays for the second team.  
a) and      b) or
6. Fishing is relaxing; \_\_\_\_\_, it can be boring.  
a) on the other hand      b) whereas
7. Tennis has to be played on a court, \_\_\_\_\_ volleyball can be played anywhere.  
a) because      b) whereas
8. We were thirsty after the game, \_\_\_\_\_ Shakir went to get some water.  
a) so that      b) so

## Lesson 4: Grammar 1: Verbs for reporting speech

**A** Look at the four reporting verbs in the table. Find them in the text on page 67 and circle them.

	verb without object	verb with object
1. verb + (that)	announce (para 5) _____ _____ _____	inform (para 6) _____
2. verb + infinitive	offer (para 3) _____ _____ _____	_____
3. verb + prep + -ing	insist on (para 6) _____	_____

**B** The four pictures below show scenes from the text on page 67. Match them to the four verbs in the table.

1



It was opened from inside.

2



I've got to see if they are OK.

3



We can pay you a lot of money.

4



It was just fireworks.

**C** Think about how the reporting verbs in the box are used in the text on page 67. Add them to the table.

accuse of   threaten   refuse   order   say   insist  
argue   ask   claim   inform

**D** In pairs, make sentences with the verbs in Exercise C.

**Examples:**

*She ordered me to do my homework.*

*She was accused of cheating.*

**E** Now do Exercises A to C on Workbook page 41.

## Lesson 5: Grammar 2: Time phrases and questions in reported speech

### 1. Time phrases in reported speech

**A** Study the grammar box. Then answer the question at the bottom of the box.

#### Time phrases in reported speech

In reported speech, the time expressions depend on when the report is given.

**Example:** Sultan: 'I'll do it tomorrow.'

1. Reported immediately:                      He says he'll do it **tomorrow**.
2. Reported the same day:                      He said he would do it **tomorrow**.
3. Reported a few days later:                He said he would do it **the next day**.

Why does *tomorrow* in 1 and 2 become *the next day* in 3?

**B** Study the phrases in the box below. Add them to the table.

the day before	two days earlier	<u>the following day</u>	the night before
----------------	------------------	--------------------------	------------------

direct speech	reported speech
'tomorrow'	the next day/ <u>the following day</u>
'next week'	the next week/the following week
'yesterday'	the previous day/ _____
'today'	that day
'two days ago'	two days before/ _____
'tonight'	that night
'last night'	_____

**C** Now do Exercise A on Workbook page 42.

### 2. Grammar review: Reporting questions

**A** Study the grammar box.

#### Reporting questions

A reported question does not have the form of a question. It is a statement.

**Examples:**

1. 'Are you coming, Mousa?'  
I asked Mousa **if he was coming**.
2. 'Where is the meeting?'  
She asked me **where the meeting was**.

**B** Now do Exercises B and C on Workbook page 42.



## Lesson 6: Speaking: Exchanging information

- A** You are going to read one of two texts. First look at these words and discuss in pairs. What do you think the text will be about?

shoot   competition   score   bullets   team   apologize

- B** Student A, read text 1. Student B, read text 2. There are several differences between the information in your text and your partner's text. Write questions in your notebook to ask your partner about his/her text. Use the ideas in 1–8 below.

**Examples:**

*When was he invited to join a team?*

*Who did he speak to?*

- |  |                    |
|--|--------------------|
| 1. when Bob was invited to join the team | 5. his score       |
| 2. the competition                       | 6. who he spoke to |
| 3. Bob's feelings                        | 7. what he said    |
| 4. his skill                             | 8. the answer      |



**1**

Bob is quite good at shooting. Last year, he was invited to join a team. The team was going to be in a national competition. This was Bob's first competition. On the day of the competition, Bob was feeling nervous, and his hands were shaking. Most of his shots did not hit the target, and his score was only 10 out of 50. He apologized to the captain and said, 'I feel like shooting myself.' The captain replied, 'If you do that, you'll probably need two bullets.'

Bob is quite good at shooting. Last week, he was invited to join a team. The team was going to be in an international competition. This was Bob's first competition. On the day of the competition, Bob was feeling excited and nervous, and his hands were shaking. A few of his shots did not hit the target, and his score was only 15 out of 50. He apologized to the team and said, 'I feel like shooting myself.' The captain replied, 'If you do that, you'll probably need six bullets.'

- C** Now ask your partner the questions you wrote in Exercise B. Then answer your partner's questions. How many differences can you find between the two texts? **Note:** Do not read your text aloud, and do not read your partner's text.
- D** Talk to a new partner. Make sure you know all seven differences.
- E** Now do Exercises A and B on Workbook page 43.

## Lesson 7: Writing: Longer sentences

### 1. Before you write

**A** Read the story below and discuss these questions in pairs.

1. Are the sentences long or short?
2. Are there a lot of connecting words or phrases?
3. How many times is the word *said* used?
4. Are there a lot of details about the story?
5. How could the story be improved?



*I learnt to swim when I was six. My parents said I would be a champion. I won a medal when I was eight. I trained hard. It was hard work. I said to my parents, 'I don't have time for anything else.' I felt like giving up. They said I should keep training. I was in the African Junior Championships. I was 13. I won three gold medals. Everyone said nice things to me. Our national anthem was played. People cheered. It was the best moment of my life.*

**B** Work in pairs. Divide the story into three sections.

**C** In each section, think of connecting words to make the section into only one or two sentences. Write them in your notebook.

**Example:** *I trained hard although it was hard work.*

**D** Replace the word *said* in the text with other verbs for reporting. You may leave the verb *said* in only one place.

**Example:** Everyone said nice things to me.  
*Everyone congratulated me.*

**E** In pairs, discuss what details you could add to the story to make it more interesting.

**Example:** *The championships took place in Cairo that year, and all the races were held in the National Sports Arena, a beautiful, modern sports complex 2 km outside the city centre.*

**F** Rewrite the story in your notebook.

### 2. Writing

**A** Read the text below. Then rewrite it in your notebook.



Tarek and his friends were driving home after dune-boarding in the desert. They were about 10 kilometres from the road when the car stopped. Tarek, who was driving, announced that they had run out of petrol.

## Lesson 8: Sports equipment

- A** These materials are all used in the manufacture of sports equipment. In pairs, check your understanding of each one and think of some examples.

nylon    graphite    PVC    polythene    aluminium  
butyl    polyester    polypropylene

- B** Decide whether the following are parts of a football (F), a badminton racket (B) or a tennis net (T). Mark the words F, B or T.

bladder     frame     mesh     stitching     shaft     valve

- C** Look at these advertisements for sports equipment. Check your answers to Exercise B.



**Football**

Our hand-sewn footballs are covered with ① \_\_\_\_\_ which is backed with four layers of ② \_\_\_\_\_ and cotton for maximum durability. The bladders are made from either natural rubber or ③ \_\_\_\_\_.

The thread which is used for stitching is high-tension strength polyester. The valve is made of soft rubber and is replaceable. This ensures a long life and maximum air retention, so our footballs can never go flat. The balls are white in colour with decorative printing.

### Badminton rackets



Win with our rackets! We offer high quality rackets at a low price. They are suitable for beginners and advanced players. All our rackets have high-performance ① \_\_\_\_\_ frames and ② \_\_\_\_\_ shafts. They are light in weight (90–95 gm) and flexible. They are also very strong.



## TENNIS

We manufacture three types of high-quality tennis nets. If you buy one, it will last for years. The dimensions of all of the nets are: length 12.72 m and height 1.07 m. The size of the mesh for all nets is 130 mm.

Type A is made from ① \_\_\_\_\_ which is 3 mm in diameter. It has 5 rows of double meshes for extra strength. It is available only in black.

Type B is made from 3 mm ② \_\_\_\_\_ braid. It has 5 rows of double meshes and is available in green and black.

Type C is made from 2.3 mm ③ \_\_\_\_\_. The netting is knotless without double rows. It is available only in black.

- D** Read the advertisements again. Put the materials from Exercise A into the correct spaces.

- E** Now do Exercises A to C on Workbook pages 43–44.

## Lesson 9: Sports stadiums

**A** In pairs, discuss the following words. Give examples of each.

1. What is compression?
2. What is tension?

**B** Study the picture of a sports stadium. What would you like to know about the stadium? Write five questions about it in your notebook.



**C** Read the text about the stadium. Try to find the answers to your five questions.

In 1972, the Olympic Games were held in Munich. A special park was created for the games, and in the centre a spectacular new stadium was built. The building, which is still used today, is known as the Munich Olympic Stadium.

The most noticeable thing about the stadium is the tent-like plexiglass roof. Ordinarily we would expect a roof to be in compression. The weight of most roofs is borne by trusses or a lattice of support beams, or, like a dome, it may generate outward thrust.

But the roof of the Munich stadium is actually in tension. The weight of the roof is carried by a pre-stressed cable net. The net is curved in two directions so that it is stable in the wind. The net is

suspended from steel masts anchored in concrete and bolstered by steel support cables. These masts are positioned outside the stadium. In this way the spectator has a perfect, uninterrupted view of the field. The cable net is connected to the plexiglass canopy by thousands of bolts about 100 mm long.

Plexiglass was chosen for the roof because it allows light to pass through, and at the same time still protects the spectator from the rain. In the 1970s this was important for television. A traditional roof would cast dark shadows across the playing area. Early television technology could not contend with heavy shadows. It was probably the first time that the needs of television influenced the design of a stadium.

**D** The words and phrases below relate to construction. Find them in the text. In pairs, discuss the meaning of each word or phrase.

trusses   a lattice of support beams   a dome  
a pre-stressed cable net   steel masts   steel support cables  
a plexiglass canopy   thousands of bolts

**E** Now do Exercise A on Workbook page 44.