# Technical English

Course Book



David Bonamy

## Check-up



Start here

Listen and complete the dialogues with the words in the box.

am are I'm is name's

- 1 Hello. I (1) am Hans Beck.
  - O Hi. My name (2) \_\_\_\_\_\_ Pedro Lopez.
  - Pleased to meet you.
- 2 Excuse me. (3) \_\_\_\_\_\_\_ you Mr Rossi?
  - O Yes, I am.
  - Pleased to meet you, Mr Rossi. (4) \_\_\_\_\_\_ Danielle Martin.
  - Nice to meet you, Danielle.
- 3 Hi. My (5) \_\_\_\_\_\_ Jamal.
  - O Hello, Jamal. (6) \_\_\_\_\_\_ Borys.
  - Good to meet you, Borys. (7) \_\_\_\_\_\_ you from Russia?
  - No, (8) \_\_\_\_\_\_ from Poland.
- 2 Work in pairs. Practise the dialogue in 1 with your partner. Talk about yourself.
- Writing 3 Complete the form about yourself. Use block capitals.

Name	Country	Occupation

Speaking

4 Work in pairs. Ask and answer questions.

What do you do? = What's your job/occupation?

I am > I'm

My name is → My name's

What is > What's

- A: Hello. What's your name? B: I'm Kato.

- A: Where are you from? B: I'm from Japan.
  A: What do you do? B: I'm a builder/an electrician/a student.

5 Play this game. Listen. Only follow the instructions if the speaker Listening says Please.

#### Vocabulary 6 Match the opposites.

start pick up raise read say stand listen lower put down sit stop write

Example:  $stand \neq sit$ 

7 Try this quiz. Choose the correct answer.













- The TV is
- The doors are 2
- 3 Turn
- 4 Go
- 5 Drive
- The hammer is
- a) on.
- a) closed.
- a) left.
- a) in.
- a) up.

a) in the box.

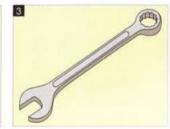
- b) off.
- b) open. b) right.
- b) out.
- b) down. b) on the box.
- c) under the box.

#### 8 Match the pictures with the words in the box.

adapter antenna bolts cable chisel nuts plug saw screws screwdriver spanner washers

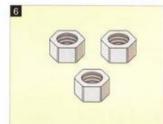




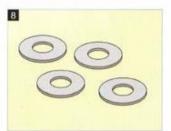


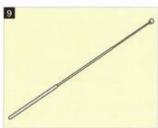


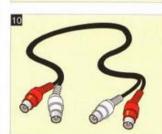


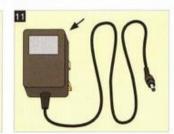














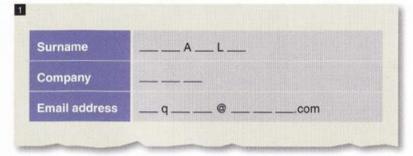
#### 2 Letters and numbers

Start here 1 Listen and correct the four mistakes in the business card.

Listening 2 505 Listen and complete the forms.









Emergency service	FIRE
Address	ES Street
Postcode	4N
Surname	ATES

3	Problems with	your product? MER SERVICE HELPLINE	
	Full name	PIETER R U	
	Postcode	2	
	House number		
	Model number	8	

**Speaking** 3 Dictate and spell out details from your business card to your partner.

800

4 Put all the letters of the alphabet into the correct column.

thr <u>ee</u>	<u>eigh</u> t	five	t <u>e</u> n	tw <u>o</u>	EXCEPTIONS
<u>B</u>	<u>A</u>	1_	E	<u> </u>	
		2			

5 Work in groups. Have a spelling competition.

Team A: Make a list of ten countries. Check the spelling. Then ask Team B to spell them correctly.

Team B: Make a list of ten capital cities. Check the spelling. Then ask Team A to spell them correctly.

Example: How do you spell EGYPT? How do you spell TOKYO?

**Listening** 6 Listen and match the pictures with the announcements.













	PAY STATION	CHMOLE
	COLUMN TOWN	<b>运</b> 员
и.		Market Com
и		-
ш	Name and Address of the Owner, where the Owner, which is the	-
		Section 1988

7	Listen again	and	complete	the	sentences	with	numbers	and	letters.
---	--------------	-----	----------	-----	-----------	------	---------	-----	----------

- 1 Counter number \_\_\_\_\_, please.
- 2 This is Radio \_\_\_\_\_ on \_\_\_\_ FM.
- 3 Please pay \_\_\_\_\_ pounds and \_\_\_\_\_ pence.
- 4 The \_\_\_\_\_ train to Oxford will depart from platform number \_\_\_.
- 5 Flight number \_\_\_\_\_ is boarding now. Please go to gate number \_\_\_\_.
- 6 To donate money to Live Aid, ring this number now:
- 7 Begin countdown now: \_\_\_\_\_\_ ...

#### Speaking 8 Play FIZZ BUZZ.

- · Count from 1 to 100 round the class.
- Use Fizz for a number you can divide by 3. Example: 3, 6, 9, 12, ...
- Use Buzz for a number you can divide by 5. Example: 5, 10, 15, 20, ...
- Use Fizz Buzz for a number you can divide by both 5 and 3. Example: 15, 30. ...
- If you make a mistake, you are OUT of the game.

Start like this: 1, 2, Fizz, 4, Buzz, Fizz, 7, 8, Fizz, Buzz, 11, Fizz, 13, 14 ...

#### Vocabulary 9

9 What do the following mean?

# km + g in kW kg L V A°rpm C km/h w gal m £ - ft € W



Example: km = kilometre

Listening	10	<b>9</b> 07	Listen and write the numbers in the correct space.

- 1 \_\_\_\_\_ °C 5 \_\_\_\_ W
  2 \_\_\_\_ A 6 \_\_\_\_ km/h 10 \_\_\_\_ V
- 2 \_\_\_\_\_A 6 \_\_\_\_\_\_km/n 10 \_\_\_\_\_V
  3 \_\_\_\_\_km 7 \_\_\_\_\_rpm 11 \_\_\_\_\_€
  - 4 \_\_\_\_\_\_ m 8 \_\_\_\_\_ kg 12 \_\_\_\_\_\_ l

#### 3 Dates and times

Start here

1 Listen to the sports results. Add the positions (2<sup>nd</sup>, 3<sup>rd</sup> and 5<sup>th</sup>) and complete the times in the blanks in the chart.



Athens Olympics 2004 Official Results Men's Finals: 1500 metres						
Position	Name	Country	Time			
(1)	Silva	Portugal	3:34.68			
4 <sup>th</sup>	Kiptanui	Kenya	(2) 3:			
1 <sup>st</sup>	El Guerrouj	Morocco	(3) 3:			
(4)	Lagat	Kenya	3:34.30			
6 <sup>th</sup>	East	Britain	(5) 3:			
(6)	Heshko	Ukraine	3:35.82			

Speaking

2 Put the ordinal numbers 1<sup>st</sup> to 31<sup>st</sup> into the chart. Read them out to your teacher.

-st	-nd	-rd	-th	
1 <sup>st</sup> ,	2 <sup>nd</sup> ,	3rd,	4 <sup>th</sup> ,	

- 3 Say the names of the months of the year.
- 4 Say the days of the week. Start with Monday.
- 5 Read out these airport codes.

FRA = Frankfurt	WAW = Warsaw	DXB = Dubai	CAI = Cairo
CDG = Paris	MAD = Madrid	FCO = Rome	NRT = Tokyo
LHR = London	BAH = Bahrain	JNB = Johannesburg	LOS = Lagos

6 Give the days of the flights.

on Mondays = on Monday every week

Flight number	From	То	Depart	Arrive	Days
1 LH 306	FRA	WAW			14
2 AF 835	CDG	MAD			246
3 EK 971	LHR	BAH			1245
4 MS 740	DXB	CAI			1357
5 AZ 7788	FCO	NRT			2356
6 SA 104	JNB	LOS			147

Example: 1 LH 306 departs from Frankfurt on Mondays and Thursdays.

Listening

Listen and write down the dates. Use dd/mm/yy.

Speaking

8 Write down some dates important to you. Then dictate them to your partner.

You dictate: The twenty-eighth of December two thousand and ten.

Your partner writes: 2010-12-28.

9 Complete the table. Read out your answers.

28th December 2010

- in Europe: 28/12/10 (dd/mm/yy)
- in the USA: 12/28/10 (mm/dd/yy)
- in Japan: 10/12/28 (yy/mm/dd)
- · ISO 8601: 2010-12-28 (yyyy-mm-dd)

write: 0; say: oh or zero.

24-hour clock	12-hour clock
07.50	(1) 7.50 am
17.30	5.30 pm
14.40	(4)
(6)	1.35 pm
05.55	(8)

24-hour clock	12-hour clock 6.30 am		
(2)			
15.15	(3)		
(5)	4.45 pm		
20.25	(7)		
(9)	9.10 pm		

10 Read out these times.

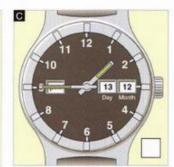
First, use the 24-hour clock. Then use the 12-hour clock.

1) 05.15 2) 08.50 3) 11.14 4) 13.40 5) 15.18 6) 17.30

- **Listening** 11 Listen and add the times to the timetable in 6. Use the 24-hour clock.
  - Listen and write the correct number next to each watch.









- 13 Read out the times and dates on the watches in 12. Use the 12-hour clock.
- Social English 14 Practise this conversation. Use different days and times.
  - A: When's the party?
  - B: It's on Friday.
  - A: Is that Friday the 24th?
  - B: Yes, that's right.
  - A: What time?
  - B: 7.30.
  - A: OK. See you then. Bye.
  - B: See you. Bye.



## Parts (1)

#### 1 Naming

#### Start here

1 Listen and complete the table.

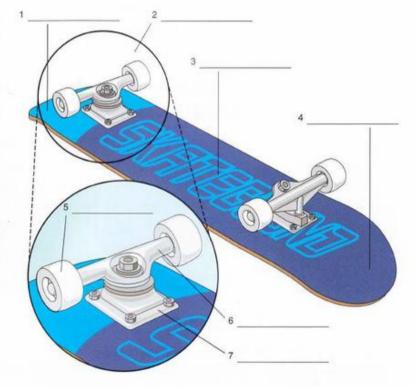
Skateboard record	Distance	Date (dd/mm/yy)
1 High jump	metres	
2 Long jump	metres	

#### Vocabulary

2 Work in pairs. Label the diagram with the words in the box.

axle deck nose plate tail truck wheel





#### Listening

- 3 Listen and check your answers to 2.
- 4 Listen and complete the dialogue.
  - What's this \_\_\_\_\_\_?
  - It's \_\_\_\_\_\_ a deck.
  - What's \_\_\_\_\_ called in English?
  - O It's called \_\_\_\_\_\_ truck.

#### Speaking

- 5 Work in pairs. Ask and answer questions about all the parts on the diagram.
  - A: What's this called? (or What's this called in English?)
  - B: It's called a deck.

#### Language

What's this called? Use this when you don't know the English word. What's this? Use this when you don't know what it is, even in your own language.

VA/In a k	's	this				's		а	deck.
What	is	that	called	2	It	is	called	an	axle.
What	are	these	called	called ?	They	're are	called	deck	

6 Complete the dialogues with the words in the box.

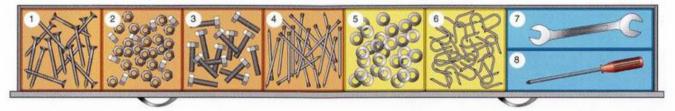
It	's	that these	They're this	those		2
1	•	What's		called in English?		Co. Co.
	0		called	a screw.	R	1
2	•	What's		_called?		
	0		called	a motorbike.	3	4
3	•	What are _		called in English?	- 00	P //// X
	0		called	bolts.		
4	•	What are _		called?	1 6	1
	0		called	antennas.	1	

#### Vocabulary

7 Listen and repeat.

nails ... bolts ... nuts ... spanner ... washers ... staples ... screws ... screwdriver

8 Match the words from 7 with the pictures.



#### Speaking

9 Work in pairs. Ask and answer questions about the tools and fixings.

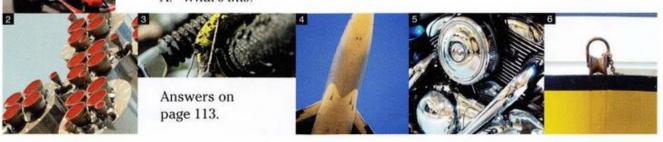
A: What are these called?

10 Point to things in the class or outside. Ask and answer questions.

What's this/that called? What are these/those called?

11 Work in small groups. What are these?
Clue: they're all vehicles on land, sea, in air and space.

A: What's this?



#### 2 Assembling

#### Start here

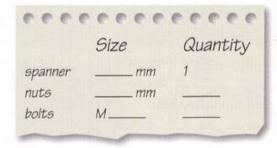
1 Work in pairs. You want to assemble a skateboard. What do you need? Choose items from page 11, exercise 7.

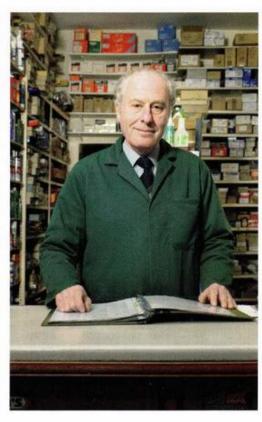
assemble (a skateboard) = fit the parts (of a skateboard) together

#### Listening

Listen and complete the checklist.

write: 1 mm; say one millimetre or one mil write: 5 mm; say five millimetres or five mil (Stress the underlined syllable) size M5 = 5 mm





#### Speaking

3 Work in pairs. Make dialogues with your partner.

bolts / 10 mm / 50

washers / M6 / 60

screws / 24 mm / 100

nuts / 36 mm / 75

bolts / M16 / 60

6 nails / 30 mil / 80 Example:

I need some bolts, please. Customer:

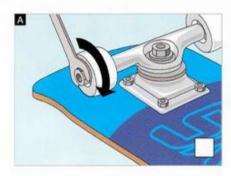
Shopkeeper: What size?

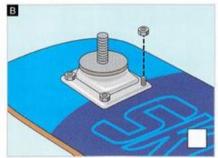
Customer: 10 mm.

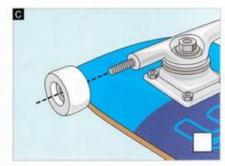
Shopkeeper: How many? Customer:

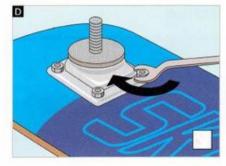
Fifty, please.

Task 4 How do you assemble a skateboard? Put these diagrams in order.

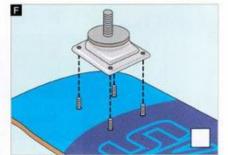












Reading 5 Read this instruction manual and check your answers to 4.



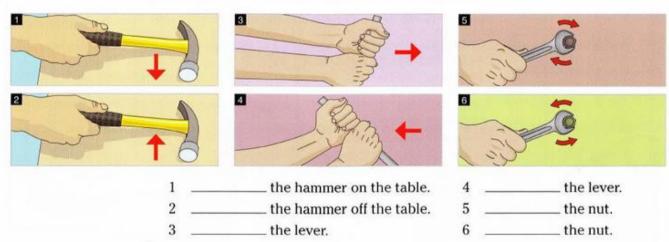
Language 6 Complete the table. Use the sentences from 5. Leave some spaces blank.

Verb (action)	Object (thing)	Location (place)
1 Put	the plate	on the four bolts.
2 Put		
3	the nuts.	
4 Put		
5 Put		
6		W
7		
8		
9		

#### Vocabulary 7 2017 Listen and repeat.

loosen ... pull ... push ... put ... take ... tighten

**8** Complete the instructions. Use the words from 7.



#### 9 Complete the table.

Verb	Opposite		
put (on)	(1)	(off)	
tighten	(2)		
push	(3)		

#### 3 Ordering

#### Listening

1 Listen to this voice mail message and complete the notes.



2 Listen and correct the mistakes in these names and numbers.

write: 55; say: five five or double 5. write: 0; say: zero or oh.



#### Speaking

- 3 Work in pairs. Choose words from this unit (e.g. screwdriver) and dictate them to your partner.
- 4 Work in pairs. Leave phone messages.

Student A. Turn to page 112.

#### Student B:

1 Leave phone messages for Student A. Use the business cards below. Spell out the name of the person and the company.

### CTELLA MARITIMA

Pepino Turi Engineer

00 39 06 625 500

#### Example:

Hello. This is John West. That's W-E-S-T. Manager of Kesko. That's K-E-S-K-O. My phone number is 00 44 1224 867 4490. Please call me back.



2 Change roles. Listen to Student A and make notes like this:



Call from John West, Manager Company: Kesko Phone number: 00 44 1224 867 4490 Please call him back.

Task 5 Work in pairs. Order goods on the phone.

Student A. Turn to page 112.

#### Student B:

You are a customer. You want to buy the items circled in red. Telephone Student A (the sales person) and order the items.



Item	Colou	ır		Size		Quantity			
Helmet	red	white	blue	large	medium	small	1	2	3
Deck	red	yellow	blue	large	medium	small	1	2	3
Pad	black	brown	green	large	medium	small	2	4	6

#### Begin:

- A: Hello. I need to buy some things for my skateboard.
- B: OK. What do you need?
- A: I need a helmet.
- 2 Change roles. You are the sales person. Ask Student A (the customer) what they want to buy.
- 3 When you have both finished, you can circle new items and phone up to order them.

#### Social English

**USEFUL PHRASES** 

What size/How many/What colour do you need?

What's your name? Please

What's your phone

spell that.

number?

- Listen and then introduce yourself and your partner to other students.
  - A: I'm Luis. I'm a student. And this is Paulo. He's a student, too.
  - B: Hello, Luis. Hello, Paulo. Nice to meet you.



## Review Unit A

Re	ewrite these statements as questions.
1	The machine's on.
	Is the machine on?
2	The switches are off.
3	Roberto's in London.
4	They're IT technicians.
5	He's a student.
6	She's Polish.
Aı	nswer the questions in the negative. Then make a positive statement.
1	Is it Sunday today? (Monday)
	No, it isn't Sunday today. It's Monday.
2	Is the power on? (off)
3	Are you Peter? (John)
4	Are they from Berlin? (Bonn)
5	Is she a technician? (engineer)
6	Is he an electrician? (builder)
Re	ewrite these sentences using contractions where possible.
1	My name is Jamal and I am from Jordan.
	My name's Jamal and I'm from Jordan.
2	This is Jean. He is French, but he is not from Paris.
3	This is Frieda. She is from Rome, but she is not Italian.
4	Look at the switch. It is down, but the power is not on.
5	These are the wrong items. They are not bolts. They are screws.
6	What is this tool called? What are these called?

4 Complete the questions and answers with the words in the box. You can use the words more than once.

am are do does is

1 Where <u>are you from?</u>

2 What \_\_\_\_\_ you do?

3 Excuse me. \_\_\_\_ you lan?

4 What \_\_\_\_ he do?

5 What \_\_\_\_ his name?

6 Excuse me. \_\_\_\_ they from France?

a) No, my name \_\_\_\_ Jan.

b) I \_\_\_\_ an IT technician.

c) His name \_\_\_\_ Peter.

d) No, they \_\_\_\_ from Germany.

e) I <u>am</u> from Denmark.

f) He \_\_\_\_ a marine engineer.

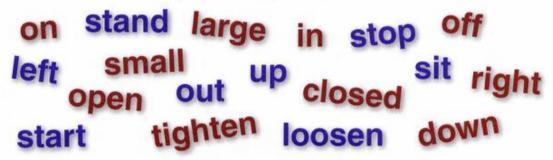
- 5 Match the questions with the answers in 4.
- 6 Work in pairs. Practise the questions and answers in 4. Use contractions.
- 7 Look at the pictures in Units 1 and 2. Work in pairs. Make questions and answers about the pictures.

What's this/that called? What are these/those called? It's/They're called ... .

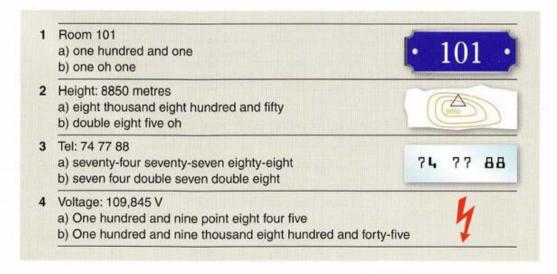
8 Look at this drawer for 15 seconds. Then close the book and list everything in the drawer.

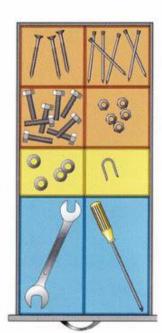
Begin: 3 screws, ...

9 Draw a line from each word to its opposite.



10 Choose the correct way to read out these numbers.





11 Work in pairs. Solve this puzzle. Write a sentence of eight words.

pea	are		see	tea	eye			V	vhy	oh	you	are			
Р		Α				S	E								
				eye							are	why			why
E	N	G	L	1	S	Н		E	٧	Е			D	Α	
	eye	tea					are	eye							
W			Н	1	Α	F			E	: 1	N I	D			

12 Complete the dialogue with the question words in the box.

How What What's 1 ● \_\_\_\_\_ do you need? 4 • \_\_\_\_\_ colour? Black or silver? Some bolts, please. O Black, please. 5 • \_\_\_\_\_\_ your name? 2 • \_\_\_\_\_ many do you need? O Forty, please. O John Martins. 3 ● \_\_\_\_\_ size? 6 ● \_\_\_\_\_ your phone number? O 10 mm, please. O It's 00 30 438 9981. 13 Say the dates and times. Use the 12-hour clock. WED 10/04/07 13.40 MON 03/09/10 11.05

Example: 1 Wednesday, the tenth of April 2007 at 1.40 pm.

07.55

- 14 Complete the number sequences with your partner.
  - a) 1, 2, 3, 5, 7, \_\_\_\_\_, \_\_\_\_
  - b) 1, 1, 2, 3, 5, 8, \_\_\_\_\_, \_\_\_\_, \_\_\_\_
  - c) 2, 5, 10, 17, 26, \_\_\_\_\_, \_\_\_\_\_
  - d) 0, 1, 10, 11, 100, 101, \_\_\_\_\_\_, \_\_\_\_\_
- 15 Write these numbers and units in words.

FRI 13/11/09

- 1 5 km five kilometres
- 2 250 kg \_\_\_\_\_
- 3 €1015\_\_\_\_\_
- 4 110 V
- 5 0°C \_\_\_\_\_
- 6 13 mm \_\_\_\_\_
- 16 Look at the pictures on page 113 for 15 seconds. Don't look again. Are these true (T) or false (F)?
  - 1 The window is open. T/F
  - 2 The TV is on. T/F
  - 3 The white switch is up. T/F
  - 4 The black switch is down. T/F
  - 5 The circle is blue. T/F
  - 6 The triangle is yellow. T/F
- 7 The large helmet is green. T/F

MED 54/01/11

21.32

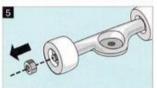
- 8 The small helmet is red. T/F
- 9 The cable is under the table. T/F
- 10 The car goes left. T/F
- 11 The letter is B. T/F
- 12 The number is 14. T/F

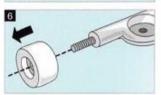












17 Complete the instructions for these pictures. Use SOME of the words in the box.

loosen off on put take tighten use

How to take the truck off the skateboard

Step 1: (a) \_\_\_\_\_\_ the large nut. (b) \_\_\_\_\_ the large spanner.

Step 2: (c) \_\_\_\_\_ the large nut (d) \_\_\_\_\_ the bolt.

Step 3: (e) \_\_\_\_\_ the truck (f) \_\_\_\_ the bolts.

How to take the wheels off the truck

Step 4: (g) \_\_\_\_\_ the small nuts. (h) \_\_\_\_ the small spanner.

Step 5: (i) \_\_\_\_\_ the small nuts (j) \_\_\_\_ the axle.

Step 6: (k) \_\_\_\_\_ the wheels (l) \_\_\_\_ the axle.

18 Put the words in the instructions in the correct order.

1 screws the tighten

Tighten the screws.

2 the large hammer use

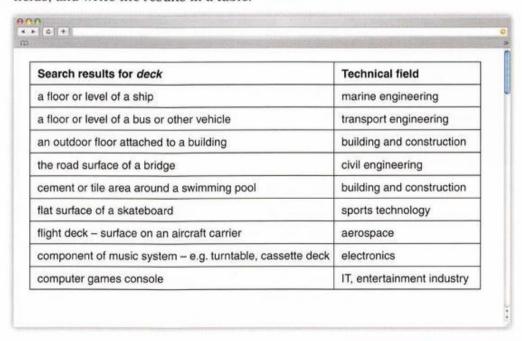
3 take off the car the old wheel

4 the new wheel put on the car

5 into the wood hammer the nails

6 through the holes the bolts push

**Project** 19 Find the meaning of the words *plate*, *truck* and *axle* for different technical fields, and write the results in a table.



# Parts (2)

#### 1 Tools

Start here 1 21 Listen and complete the TV advert.

This is the	new Multi Too	1!	-
	it on the building site. Use	THE STATE OF THE S	
Charles and the second of the first first	, a (4)		ditt.

2 Listen and complete the dialogue with the words in the box.

pliers and scissors are always plural say: I need some scissors, or I need a pair of scissors.

Listening

do does doesn't have	
• Do you (1)	a Multi Tool?
O Yes, I (2)	
Does the Multi Tool (3)	a hammer?
O Yes, it (4)	
Does it (5)	a pair of scissors?
O No. it (6)	

3 Listen and repeat.

a pair of pliers ... a pair of scissors ... a blade ... a can opener ... a bottle opener ... a screwdriver

#### Language

Do	you	have	a Multi Tool?	Yes, I do. / No, I don't.	
Does	the Multi Tool			a hammer?	Yes, it does. / No, it doesn't.
	The Multi Tool	doesn't	have	a hammer.	

4 Work in pairs. Practise the dialogue.

A:	Does Pedro have a Multi Tool?	Bob / you / we
B:	Yes, he does.	he/I/we
A:	Does it have a ruler?	chisel / saw / spanner / screwdriver
B:	No, it doesn't.	yes / no
A:	Does it have a pair of pliers?	hammer / scissors / opener / blade
B:	Yes, it does.	no / yes

5 Work in pairs. Design a Multi Tool for your work.

**Reading** 6 Complete the labels for this tool.

7 Read this product review and check your answers to 6.

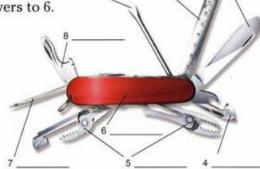


#### Product review: Survival Tool

This tool has a ruler, a screwdriver, a pick and a blade. It also has two openers. One opens cans. The other opens bottles. It has two wrenches.

It doesn't have a saw. And it doesn't have a hammer, because the tool is too small.

It has a plastic cover. The cover comes in three colours: black, blue or red.



1 screwdriver

#### Speaking

8 Ask and answer questions about the Survival Tool and the Multi Tool. Use the words in the box.

BrE spanner, AmE wrench

blade can opener cover hammer pair/pliers pair/scissors ruler wrenches

A: Does the Survival Tool/Multi Tool have ...?

B: Yes, it does. / No, it doesn't.

#### Vocabulary

9 Match the parts to the words.

handle, shaft, head, blade, jaws



10 Draw some tools that you use in your work. Label some parts with words from 9. Then make sentences.

This is a .... It has a handle, a head and two jaws.

#### Speaking 11 Compare these three products.



	Survival Tool	Multi Tool	Key Tool
knife blade			
saw	Free Park 1		•
screwdriver	•		
bottle opener			
can opener	• 13		
ruler -			
pick			
wrench			
hammer		1111-01-1	
oliers			

- 1 The Key Tool has a screwdriver, but it doesn't have a wrench.
- 2 The Survival Tool has a ruler, but the Multi Tool doesn't.

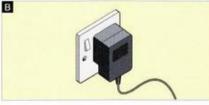
Writing 12 Write a short comparison of the three products in 11.

#### 2 Functions

Start here

1 Match the words with the pictures.







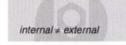


Electrical power sources

- 1 mains electricity + AC adapter
- 2 solar power
- 3 dynamo
- 4 batteries

**Reading** 2 Label the photos of the emergency radio below with the words in the box.

alarm antenna clock compass handle thermometer torch



3 Listen and repeat.

handle ... thermometer ... torch ... alarm ... clock ... compass ... antenna

4 Read the description and check your labels.



- 5 Explain the function of these parts.
  - 1 the AC adapter
- 3 the dynamo
- 2 the handle
- 4 the solar panel

6 Match the parts with their functions.

#### Part **Function** a) shine a light 1 thermometer 2 compass b) make electricity 3 torch c) turn the dynamo clock d) tell the time 4 5 alarm e) find North 6 solar panel f) receive radio signals handle 7 g) measure temperature antenna h) make a loud noise

Make sentences from the parts and functions in 6.

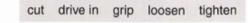
Example: 1 The thermometer measures temperature.

Language	8	It		measure	s	temperature.	
	Does	it		measure		temperature?	Yes, it does. / No, it doesn't.
		It	does not	measure		speed.	

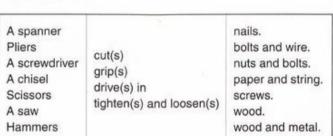
Speaking **8** Work in pairs. Make questions and answers, using the words from 6.



- A: Does a thermometer measure time? B: No, it doesn't. It measures temperature.
- Match the pictures with the verbs in the box.



10 Make sentences.





Social English 11 Make a list of job titles useful to you. Use a dictionary.

Examples: marine technologist, computer operator, automotive engineer, architectural technician

- 12 Find out about other students in your class.
  - A: What do you do?
  - B: I'm a/an ... (student/builder/mechanic ...)
  - A: Where do you study/work?
  - B: I study/work at .... (name of school/college/company ...)
  - A: What does ... do?
  - B: He/She's a/an ... . He/She works at ... .

#### 3 Locations

#### Start here

1 Listen to this computer lesson. Complete the dialogue with the words in the box.

at bottom on left right top

- OK, now put the cursor on the START button.
- O Where's the START button?
- It's \_\_\_\_\_\_ the \_\_\_\_\_. On the \_\_\_\_\_. Do you see it?
- O Yes. Is that it?
- Yes, that's correct. ... Now, move the cursor up to the CLOSE button.
- O Where's that?
- It's an X. It's \_\_\_\_\_\_ the \_\_\_\_\_. At the \_\_\_\_\_.
- O Is that it?
- · Yes, that's it. Now click.

#### Vocabulary

middle = centre

BrE centre, AmE center

2 Match the TV monitors with their locations.

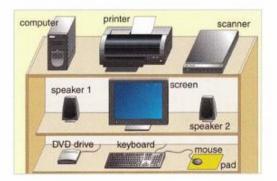
- 1 bottom left \_
- 2 bottom right \_
- 3 centre bottom \_\_
- 4 centre left
- 5 centre right \_\_
- 5 centre right \_
- 6 centre top \_\_\_
- 7 top left \_\_\_
- 8 top right \_\_\_
- 9 centre \_\_



#### Language

in in the middle, in the centreat at the top, at the bottomon on the left, on the right

Reading 3 Correct this description. There are six mistakes in location.

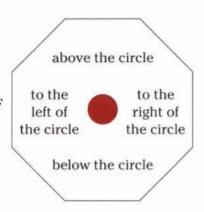




Here is one way to set up your computer station. Put your screen in the centre of the system. Then put one speaker in the centre on the left, and put the other speaker in the centre on the right. Put the scanner at the top on the left, and put the computer at the top on the right. Then put the DVD drive at the top in the middle and put the printer at the bottom on the left. Finally, put the keyboard at the bottom on the right, and put the mouse at the bottom in the centre.

#### Language

- 4 Look again at the computer station in 3. Are these statements true or false?
  - 1 The computer is at the top, on the left. T/F
  - 2 The computer is above speaker 1. T/F
  - 3 The computer is to the left of the printer. T/F
- 5 Look at the diagram. When do we use *ON the left* and when do we use *TO the left OF*?
- 6 Complete the sentences about the computer station in 3 with the words in the box.



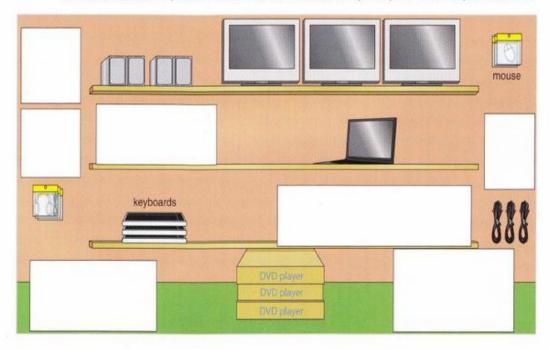
above at below of in on to

- The printer is \_\_\_\_\_ the top, \_\_\_\_ the middle.
  The scanner is \_\_\_\_\_ the right \_\_\_\_ the printer.
  The screen is \_\_\_\_ the printer.
- 2 The mouse is \_\_\_\_\_ the bottom, \_\_\_\_ the right.
  The keyboard is \_\_\_\_ the left \_\_\_\_ the mouse.
  Speaker 2 is \_\_\_\_ the mouse.
- 7 Look again at the computer station in 3. Make sentences about the location of:
  - 1 the mouse
- 2 the DVD drive
- 3 the scanner
- 4 the screen

#### **Task** 8 Work in pairs. Student A. Turn to page 113.

#### Student B:

- 1 Answer Student A's questions. Use phrases from exercise 6.
- 2 Ask Student A where these items are and write them in their correct locations: mouse pads, scanners, CD-ROMS, adapter, printers, amplifiers, TV.

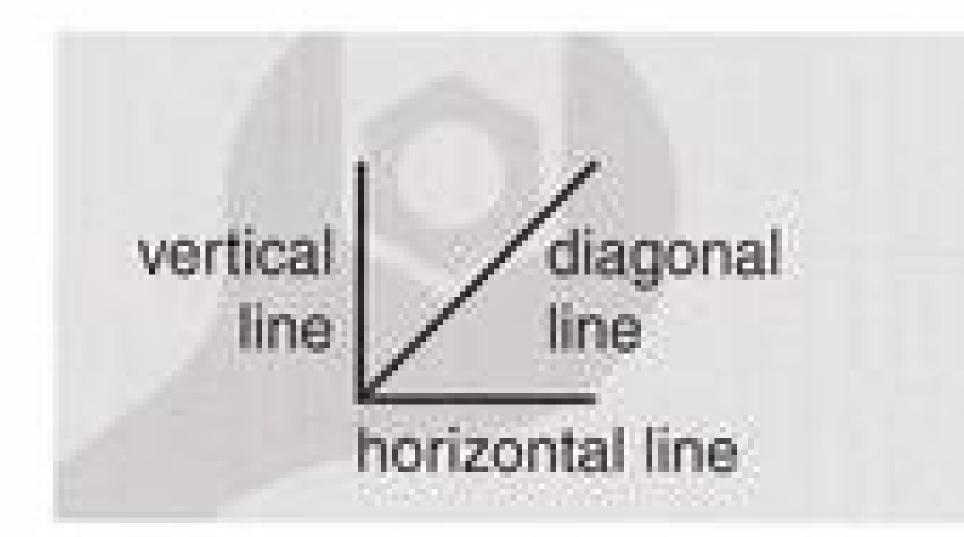


shelf (singular); shelves (plural)

# Movement

# 1 Directions

# Start here



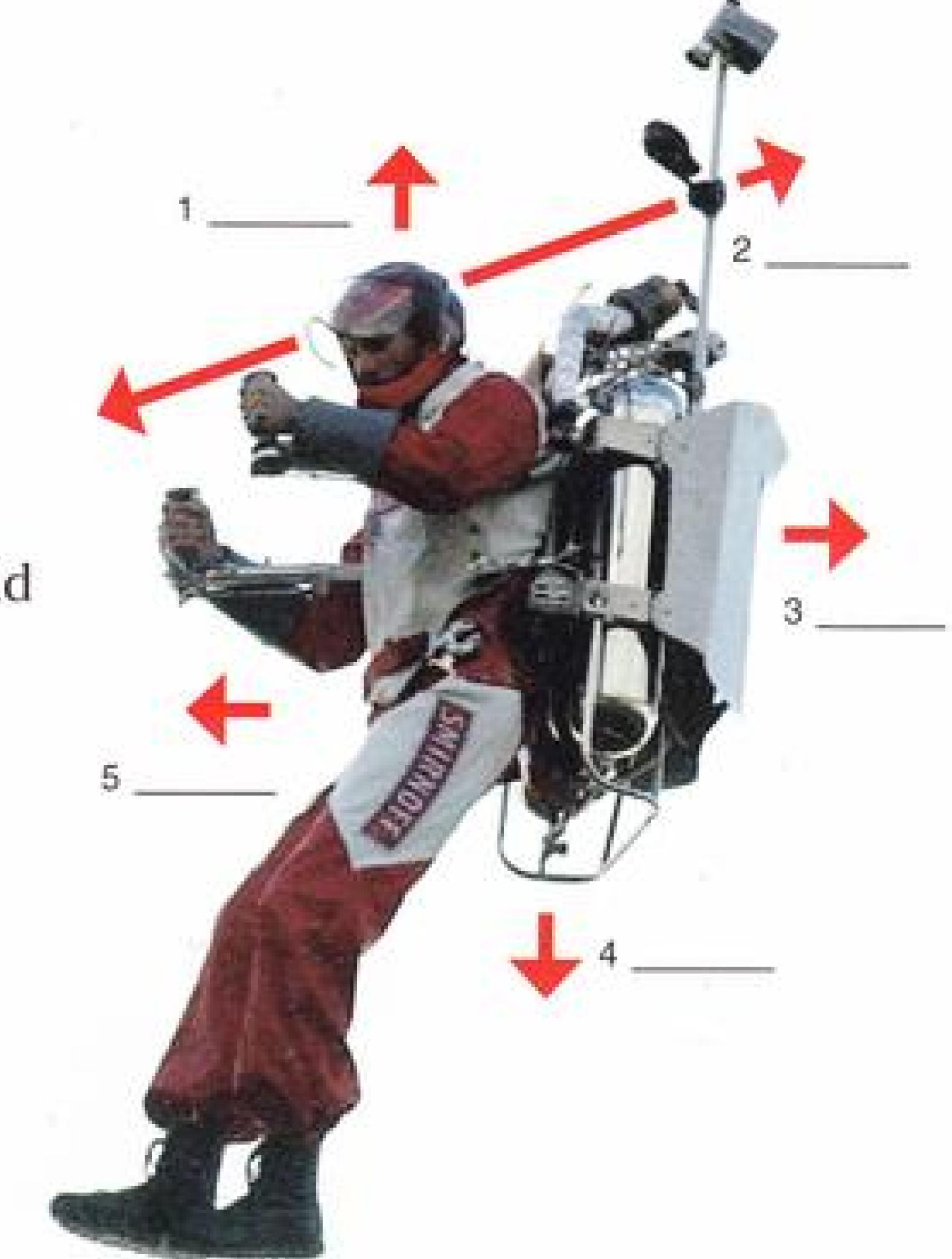
straight up/vertically up
diagonally up

1 Label the jetpack man's movements with the words in the box.

backwards down forwards sideways up

Work in pairs. Which directions can planes and helicopters fly? Tick the boxes.

Direction	Plane	Helicopter
forwards		
backwards		
up and down		
sideways		



# Reading

3 Read the text. Check your answers to 2.

Passenger planes can fly forwards, and can turn to the left and to the right. But they cannot fly backwards or sideways. They can fly diagonally up and down, but they cannot fly straight up or straight down.

Helicopters can fly forwards, straight up and down, sideways and backwards.

Planes and helicopters can both rotate. Planes and helicopters can rotate on their horizontal axis. Helicopters can also rotate on their vertical axis.

# Language

	It	can	fly	aid anne	
		can't/cannot		sideways.	
Can	it		fly	sideways?	Yes, it can. / No, it can't Yes, they can. / No, they can't

4 Complete these sentences with can or can't.

1 A helicopter \_\_\_\_\_ fly sideways, but a plane \_\_\_\_\_.

2 A plane \_\_\_\_\_ fly sideways, but it \_\_\_\_\_ fly forwards.

3 A plane \_\_\_\_\_ fly straight up, but a helicopter \_\_\_\_\_.

4 A plane \_\_\_\_\_ fly straight up, but it \_\_\_\_\_ fly diagonally.

Speaking 5 Work in pairs. Practise dialogues.

helicopter(s) / rocket(s) / plane(s) / fly sideways / fly straight up / fly diagonally up / rotate

A: Can a plane fly forwards?

B: Yes, it can.

A: Can it fly backwards?

B: No, it can't.

Task 6 Work in pairs. Follow the instructions and answer the questions.

Close your fist and hold your arm out straight in front of you.

- 1 Think of your wrist. (Don't move it). How many directions can it move in? One, two, three or four?
- 2 Think of your shoulder. (Don't move it). How many directions can it move in? One, two, three or four?
- 3 Think of your elbow. (Don't move it). How many directions can it move in? One, two, three or four?

Reading 7 Read the text. Check your answers to 6.



The human arm can move in seven different directions. The arm has three pivots: the wrist, the elbow and the shoulder. The wrist can move in three different directions. At the wrist, the hand can move up and down about 90°, it can move from side to side about 70°, and it

can rotate about 180°. The shoulder can move in the same three directions, but different angles. It can rotate about 20°. The elbow can only move in one direction. At the elbow, the forearm can only move up and down. It cannot move sideways or rotate.

8 Match each movement in the diagram in 7 with a word or phrase from the box.

rotate move sideways move up and down

**Listening** 9 Listen and choose the correct answers.

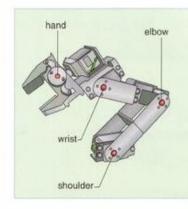
- 1 a) 19° b) 90°
- 3 a) 17° b) 70°
- 2 a) 14° b) 40°
- 4 a) 118° b) 180°

**Task** 10 Work in groups. Look at the diagram in 11 and answer these questions.

- 1 How many directions can this robot arm move?
- Which part of the robot arm has different movements from the human arm. Is it: a) the shoulder? b) the wrist? c) the elbow?

Language 11 Complete the text about the robot arm with the words in the box.

can can't has is isn't



This robot arm (1) \_\_\_\_\_ like a human arm. It (2) \_\_\_\_ a 'wrist', an 'elbow' and a 'shoulder'.

The 'wrist' (3) \_\_\_\_\_ like the human wrist. It (4) \_\_\_\_\_ three movements. It (5) \_\_\_\_ rotate. It (6) \_\_\_\_ move from side to side. It (7) \_\_\_\_ move up at

down.

The 'elbow' (8) \_\_\_\_\_ like the human elbow. It (9) \_\_\_\_ one movement. It

(10) \_\_\_\_\_ move up and down.

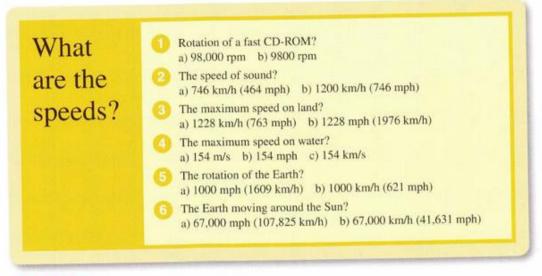
The 'shoulder' (11) \_\_\_\_ like the human shoulder, because it only (12) \_\_\_\_ two movements. It (13) \_\_\_\_ rotate, and it (14) \_\_\_\_ move up and down. But it

(15) \_\_\_\_\_ move sideways.

#### 2 Instructions

Start here 1 Try this quiz. Choose the correct answer.

km/h = kilometres per hour (used by most countries) mph = miles per hour (used in some countries, including the US and UK) m/s = metres per second rpm = revolutions per minute; 1 revolution = 1 rotation of 360°



#### Listening

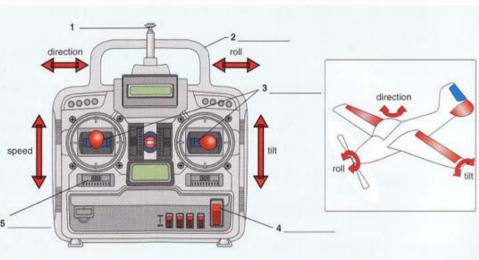
- 2 Listen and check your answers to 1.
- 3 Work in pairs. Write down some speeds. Dictate them to your partner.

#### Vocabulary

4 Label the diagram with the words in the box.

antenna handle joysticks slider switch





Task 5 Work in groups. What do you think the plane does when you move these controls?

Look at the joystick on the left.

- 1 Push it up (away from you). Pull it down (towards you). What happens?
- 2 Push it to the left. Push it to the right. Now what happens?

Look at the joystick on the right.

- 3 Push it up. Pull it down. What happens?
- 4 Push it to the left. Push it to the right. Now what happens?

#### Remote control transmitter for model plane

#### User manual

Look at the diagram of the transmitter. There are two joysticks. One is on the left. This is the left-hand (LH) stick. The other is on the right. This is the right-hand (RH) stick.

Now look at the LH joystick. This controls the speed and the direction of the plane. Push the LH stick up (away from you) and the plane accelerates. Pull it down (towards you) and the plane slows down. Slide the stick to the left and the plane turns left. Slide it to the right and it turns right.

Now look at the RH joystick. This controls the roll and the tilt of the plane. Push the RH stick up (away from you) and the plane descends (or goes down). Pull it down (towards you) and the plane ascends (or goes up). Slide the stick to the left and the plane rolls to the left. Slide it to the right and it rolls to the right.

- 7 Which words in the text do these pronouns refer to?
  - 1 it (line 4)
- a) direction
- b) plane
- c) LH stick

- 2 it (line 5)
- a) plane
- b) LH stick c) right
- 8 Match your actions with the plane's actions.

#### Your action

- 1 Move the LH stick up. -
- 2 Pull the LH stick down.
- 3 Move the LH stick to the left.
- 4 Move the LH stick to the right.
- 5 Move the RH stick up.
- 6 Pull the RH stick down.
- 7 Move the RH stick to the left.
- 8 Move the RH stick to the right.

#### The plane's action

- a) The plane goes to the left.
- b) The plane goes faster.
- c) The plane goes down.
- d) The plane goes more slowly.
- e) The plane rolls to the left.
- f) The plane goes up.
- g) The plane rolls to the right.
- h) The plane moves to the right.

#### Speaking

- 9 Work in pairs. Make dialogues with the information from the table in 8.
  - A: Can the plane fly to the left?
  - B: Yes, it can. You move the left-hand stick to the left.
- Social English 10 Work in pairs. Find out what your partner can and can't do.
  - A: Can you swim?

- B: Yes, I can. Can you?
- A: Yes, I can. Can you sail a boat?
- B: No, I can't.















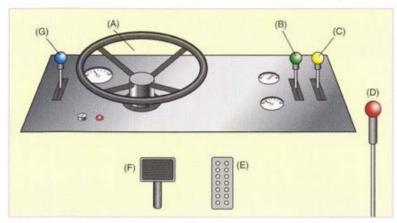


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#### 3 Actions

**Start here** 1 Look at the diagrams and answer the questions.

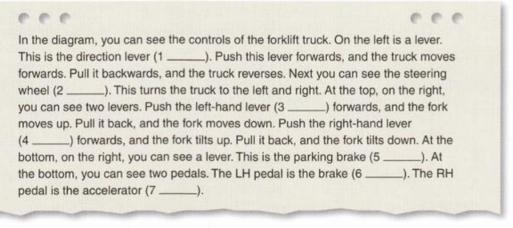




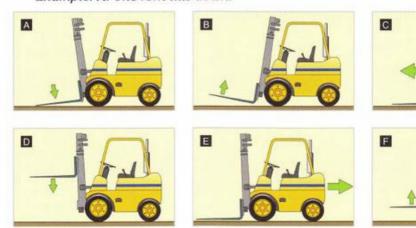
- 1 How many pedals does it have?
- 2 How many levers does it have?
- 3 Is the steering wheel on the left or on the right?

### **Reading** 2 Read the manual. Write the letters (A–G) from the diagram next to the controls.

reverse = go backwards



3 Describe these movements of the truck. Use words from the manual. Example: A. The fork tilts down.



#### Speaking

4 Work in pairs. Have a driving lesson.

Student A: You are the driving instructor. Give instructions.

Student B: You are learning to drive. Follow the instructions. Act them out.

turn round = do a U-turn

Drive forwards. Reverse. Go slowly. Go faster. Slow down. Stop! Turn left. Turn right. Reverse to the left. Reverse to the right. Turn round. Do a U-turn. To the left. To the right.

#### Writing

- 5 Write a short set of instructions for one of these jobs. Draw a diagram.
  - 1 How to park a car.
  - 2 How to dock a small sailing boat.
  - 3 (Choose your own job.)
- 6 Write full sentences from these notes. Use when and you and add the and punctuation.
  - 1 pull lever C backwards → fork tilts down
  - 2 push lever B forwards → fork moves up
  - 3 turn steering wheel to the right → truck turns right
  - 4 pull lever G backwards → truck reverses
  - 5 press brake pedal → truck stops
  - 6 press accelerator → truck goes faster

Example: 1 When you pull lever C backwards, the fork tilts down.

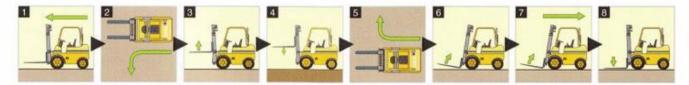
#### Task 7

7 Work in pairs. Have a driving lesson for the forklift truck.

Student A. Turn to p. 115.

#### Student B:

- You're the driving instructor for the forklift truck. Student A is learning to drive the truck. Tell Student A to follow these instructions in the correct sequence.
- 2 Then change roles. Follow Student A's instructions and rearrange your pictures into the correct sequence.



The correct sequence of the instructions is:

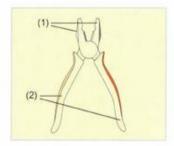


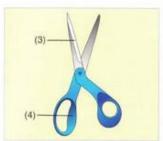
# Review Unit B

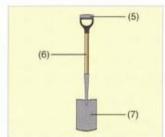
1	Re	ewrite these statements as questions.							
	1	John has the spanners.	Does John have the spanners?						
	2	The students have a holiday tomorrow.							
	3	The Multi Tool has a screwdriver.							
	4	These bikes have strong brakes.							
	5	The radio has an internal battery.							
	6	Those houses have solar panels.							
2		nswer the questions in the negative. Then	make a positive statement.						
	1	Do you have a car? (motorbike)							
	•	No, I don't have a car. I have a motorbike.							
	2	Does your brother have a DVD? (VCR)							
	3	Does the Multi Tool have scissors? (knife blade)							
	4	Do we have English today? (Science)							
	5	Does your radio have batteries? (dynam	0)						
	6	Do the pliers have plastic handles? (metal handles)							
3	Re	ewrite these sentences using contractions	where possible.						
	1	The Multi Tool does not have a wrench.	It is not very useful.						
	-	The Multi Tool doesn't have a wrench. It isn't v							
	2	We do not have an AC adapter. We can not switch on the computer.							
	3	I am a technician, but I do not have my tools here. I can not repair your TV							
	4	The electricity is off, and we do not have the radio now.	e any batteries. You can not use						
4	Gi	ve short answers.	ed						
	1	Can you swim? (No) No, I can't.							
	2	Is he an IT technician? (No)							
	3	Does the DVD work now? (Yes)							
	4	Do your friends have tickets for the cine	ema? (No)						
	5	Are you a technology student? (Yes)							
	6	Does your radio have a solar panel? (No							
	7	Are you a telecoms engineer? (No)							
	8	Can planes rotate on a horizontal axis? (							

- 5 Complete the dialogue with the correct form of the verbs in brackets.
  - Look at my radio. Do you like it?
  - Yes, it's great. What (1) \_\_\_\_\_\_ (do) that handle (2) \_\_\_\_\_ (do)?
  - It (3) \_\_\_\_\_ (turn) a dynamo. The dynamo (4) \_\_\_\_ (produce) electricity for the radio.
  - O What are those, at the top?
  - They're solar panels. They (5) \_\_\_\_\_ (charge) the internal battery on a sunny day.
  - O Can the radio also (6) \_\_\_\_\_ (use) mains electricity?
  - Yes, it can. And it also (7) \_\_\_\_\_ (use) AA external batteries.
  - O So your radio (8) \_\_\_\_\_ (have) four power sources!
  - That's right.
- 6 Label the parts with the words in the box.

blade/blades handle/handles head jaws shaft









7 Describe the tools in 6.

Example: 1. A pair of pliers has two handles and two jaws.

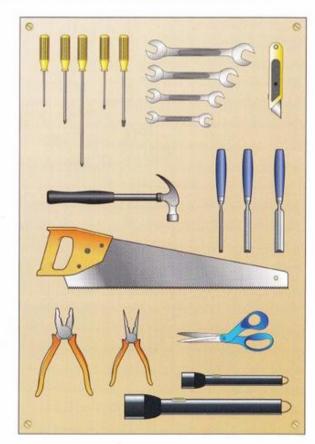
8 Look at this toolboard for 15 seconds. Then close the book and list all the tools.

Begin: Five screwdrivers. They're at the top, on the left.

9 Look again at the toolboard on the right. Make sentences with the words in the box.

above below to the left of to the right of

Example: The screwdrivers are to the left of the spanners and above the hammer.



- 10 Guess the device from its description.
  - 1 This item covers the head and protects it. Skateboarders use it.
  - 2 This tool has handles and jaws. It can grip nuts and bolts. It pulls nails out.
  - 3 This equipment converts (or changes) sunlight into electricity.
  - 4 You rotate these items onto bolts. You tighten them with a spanner.
  - 5 This item receives radio and TV signals. You can see it on a house or car.
  - 6 This equipment produces electricity when it rotates.
- 11 Complete these questions and answers with the words in the box.

Notice the spelling change: am are come/comes do does is study/studies work/works study > studies

- 1 Where are you from? -
- 2 What \_\_\_\_\_ you do?
- 3 Where \_\_\_\_\_\_ you study?
- 4 What \_\_\_\_\_ your subject?
- 5 Where \_\_\_\_\_ Elli come from?
- 6 \_\_\_\_\_ she a student, too?
- 7 What \_\_\_\_\_ she do?
- 8 Where \_\_\_\_\_ she work?

- a) She \_\_\_\_\_ at Vodafone.
- b) I \_\_\_\_\_ a student.
- c) She \_\_\_\_\_ a technician.
- d) She \_\_\_\_\_ from Finland.
- e) I am from Japan.
- f) I \_\_\_\_\_ at the Technical College.
- g) I \_\_\_\_\_\_ telecoms engineering.
- h) No, she \_\_\_\_\_ not.
- **12** Match the questions with the answers in 11.
- 13 Work in pairs. Practise the questions and answers in 11. Use contractions where possible.

Example: 1-e A: Where are you from? B: I'm from Japan.

- 14 Cross out the silent letters in the words below. Say the words.
  - 1 knife
- 4 scissors
- 7 descend

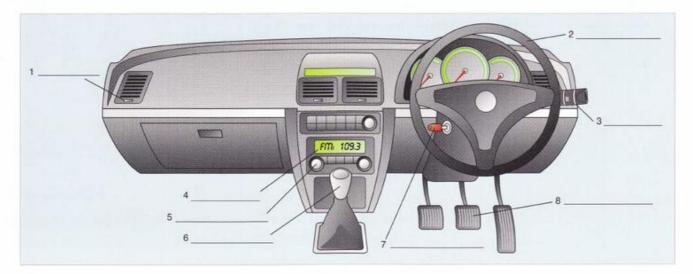
- 2 build
- 5 wrist
- 8 right

- 3 building
- 6 ascend
- 9 tighten

Example: \psirench

15 Label the controls with the words in the box.

button display key lever pedal slider switch wheel



#### 16 Put a, an, some or a pair of before each item.

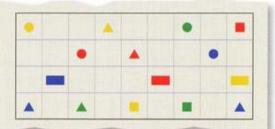
To buy:					
	_printer	AC adapter	speakers	keyboard _	amplifier
-	_headphones _	earphones _	nuts	bolts	pliers

- 17 Make positive and negative statements.
  - 1 this opener ... open bottles ✓ open tins X
  - 2 these wrenches ... tighten the M12 bolts ✗ loosen the M5 nuts ✓
  - 3 that antenna ... receive radio signals ✓ transmit them X
  - 4 a rocket ... fly straight up ✓ reverse X
  - 5 passenger planes ... fly sideways ✗ turn left and right ✓
  - 6 I... drive a car ✓ operate a forklift truck ✗

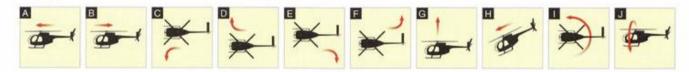
Example: 1 This opener can open bottles, but it can't open tins.

18 Follow the instructions.

Start at the red triangle. Move sideways three boxes to the right. Go diagonally up one box to the right. Move horizontally eight boxes to the left. Descend vertically three boxes. Go diagonally up two boxes to the right. Move diagonally down two boxes to the right. Where are you?



- 19 Match pictures with the instructions below.
  - 1 Fly diagonally down.
  - 2 Fly forward.
  - 3 Fly straight up.
  - 4 Reverse.
  - 5 Rotate on a vertical axis.
- 6 Reverse to the left.
- 7 Turn left.
- 8 Rotate on a horizontal axis.
- 9 Turn right.
- 10 Reverse to the right.



Projects 20 Make a list of job titles in your industry.

Example: Construction Industry: structural engineer, quantity surveyor, site manager, architectural technician, etc.

21 What do these word parts mean? Find other words with the same part.

Word part	Meaning of word part	Example of word	Meaning of word
multi-		1 multimedia	1
muiu-		2	2
therm-		1 thermometer	1
merm-		2	2
kilo-		1 kilometre	1
KIIO-		2	2