

CAMBRIDGE

Professional English

Infotech

English for computer users

Fourth Edition

Student's Book

Santiago Remacha Esteras

Fully updated with the
latest advances in
technology

Contents

Map of the book	iv		
Thanks and acknowledgments	viii		
Module 1 Computers today	1	Module 6 Creative software	99
Unit 1 Living in a digital age	2	Unit 20 Graphics and design	100
Unit 2 Computer essentials	7	Unit 21 Desktop publishing	105
Unit 3 Inside the system	11	Unit 22 Multimedia	110
Unit 4 Buying a computer	16	Unit 23 Web design	114
Module 2 Input/Output devices	21	Module 7 Programming / Jobs in ICT	119
Unit 5 Type, click and talk!	22	Unit 24 Program design and computer languages	120
Unit 6 Capture your favourite image	27	Unit 25 Java™	125
Unit 7 Display screens and ergonomics	32	Unit 26 Jobs in ICT	129
Unit 8 Choosing a printer	37		
Unit 9 Devices for the disabled	42	Module 8 Computers tomorrow	134
Module 3 Storage devices	47	Unit 27 Communication systems	135
Unit 10 Magnetic storage	48	Unit 28 Networks	140
Unit 11 Optical storage	52	Unit 29 Video games	145
Unit 12 Flash memory	57	Unit 30 New technologies	150
Module 4 Basic software	62	Appendix: a model CV	155
Unit 13 The operating system (OS)	63	Glossary	156
Unit 14 Word processing (WP)	68	Irregular Verbs	166
Unit 15 Spreadsheets and databases	73	Acronyms and abbreviations	168
Module 5 Faces of the Internet	78		
Unit 16 The Internet and email	79		
Unit 17 The Web	84		
Unit 18 Chat and conferencing	89		
Unit 19 Internet security	94		

	UNIT	LISTENING	READING	S
Module 1 Computers today	1 Living in a digital age	Computers at work	The digital age The magic of computers	C d
	2 Computer essentials	Different types of computer	Advertising slogans What is a computer?	C
	3 Inside the system	A PC system	Technical specifications What is inside a PC system? How memory is measured	I e
	4 Buying a computer	In a computer shop Choosing the right computer	Computer adverts Technical specifications	
Module 2 Input/Output devices	5 Type, click and talk!	Describing input devices Mouse actions	Interacting with your computer Speech recognition systems	
	6 Capture your favourite image	Scanners	The eyes of your computer Press release: a digital camera	
	7 Display screens and ergonomics	Choosing the right display device Ergonomics	How screen displays work	
	8 Choosing a printer	Multi-function printers	Which type of printer should I buy? Printer adverts	
	9 Devices for the disabled	Assistive technologies for the blind	Computers for the disabled	
Module 3 Storage devices	10 Magnetic storage	Buying a portable hard drive	Magnetic storage	
	11 Optical storage	CDs and DVDs	Optical discs and drives	
	12 Flash memory	Flash drives	Memory in a flash!	
Module 4 Basic software	13 The operating system (OS)	Windows Vista	GUI operating systems	
	14 Word processing (WP)	The Cut and Paste technique	WP tools	
	15 Spreadsheets and databases	The Excel spreadsheet program	An invoice and covering letter Databases	

SPEAKING	WRITING	LANGUAGE WORK	VOCABULARY
Discussing what computers do	A short summary of a discussion	Collocations 1	Basic computer terms, computers in education, banks, offices, airports, libraries, entertainment, etc.
Describing a diagram	An email explaining the benefits of laptops and tablet PCs	Classifying	Basic hardware and software terminology
Describing your ideal computer system	Notes about your ideal computer system	Defining relative clauses	<i>Processor, chip, control unit, arithmetic logic unit, etc.</i> Units of memory: KB, MB, GB, etc.
Role play – buying a computer	An email recommending a computer	Language functions in a computer shop	Vocabulary tree: revision of vocabulary from Module 1
Describing input devices		Describing functions and features	Input/Output devices, groups of keys, mouse actions
Describing a camera		Superlatives Suffixes	Scanners, cameras
Discussing which display devices you would most like to own	Guidelines for an ergonomic school or office	Instructions and advice	Display screens, ergonomics
Choosing the right printer	An email to a friend comparing two printers	Connectors 1 Comparatives	Types of printer, printer technology
Discussing assistive technology	An email summarizing the different assistive technologies available	Noun phrases	Devices for the disabled
Discussing how to protect your data	An email explaining hard drive precautions	Precautions Word building	Types of magnetic storage, technical details of magnetic storage
Choosing storage devices	A post on a forum discussion about format wars	Connectors 2	Types of optical storage, technical details of optical storage
Describing flash drives	A text message to a friend explaining the difference between MP3 and MP4	Word building	Types of flash drive, technical details of flash memory
Comparing user interfaces	A summary of a text	Countable and uncountable nouns Articles	GUIs, the WIMP environment, desktop features, etc.
Giving instructions for carrying out tasks in Word	Instructions for using <i>Find and Replace</i> in Word	Giving and following instructions	Functions and features of word processors
Discussing the software you use at home and at work	A fax of complaint	Plurals	Functions and features of spreadsheets and databases

	UNIT	LISTENING	READING
Module 5 Faces of the Internet	16 The Internet and email	Internet basics	Internet FAQs Email features
	17 The Web	E-commerce and online banking	A typical web page The collectives of cyberspace
	18 Chat and conferencing	At a cybercafé	Virtual meetings Netiquette
	19 Internet security	Safety online for children	Security and privacy on the Internet The history of hacking
Module 6 Creative software	20 Graphics and design	The toolbox	Computer graphics
	21 Desktop publishing	Steps in a DTP publication	What is desktop publishing? Steps in a DTP publication
	22 Multimedia	Components and system requirements	Multimedia magic!
	23 Web design	Designing a website	Web page design
Module 7 Programming / Jobs in ICT	24 Program design and computer languages	Steps in programming	Computer languages
	25 Java™	The history of Java	Java applets The Java language
	26 Jobs in ICT	IT professionals A job interview	Job adverts A letter of application
Module 8 Computers tomorrow	27 Communication systems	VoIP technology	Channels of communication
	28 Networks	Small networks	Networking FAQs
	29 Video games	Present and future trends in gaming	Game genres
	30 New technologies	RFID tags	Future trends

Thanks and acknowledgements

The author would especially like to express his gratitude to Paz, Marina and Violeta. My special thanks to Nick Robinson for his invaluable feedback and for editing the typescript and to Tony Garside for his input and expertise. Thanks are also due to the teachers and students of Pilar Lorengar High School, Zaragoza. Thanks to Cambridge University Press for their vision, support and faith in the project, to Matt Robinson for his generous contribution on video games, and to Angel Benedi and Elena Marco for their help and advice.

We are grateful to all the teachers who provided input and advice during the development of this new edition.

The authors and publishers acknowledge the following sources of copyright material and are grateful for the permissions granted. While every effort has been made, it has not always been possible to identify the sources of all the material used, or to trace all copyright holders. If any omissions are brought to our notice, we will be happy to include the appropriate acknowledgements on reprinting.

p. 31 Kodak Easy Share C663 Press Release 3 January 2006, © 2003-2007 Ketchum Inc.; p. 41 adapted text describing Canon SELPHYCP750 Photo Printer, © Canon 2007; p. 41 adapted text describing Vutek UltraVu II 5330 from www.efi-vutek.com/products; p. 41 Brother UK Ltd for text describing Brother HL Network Colour Laser Printer HL 2700 CN, www.brother.com.au; p. 59 Amazon for description of Olympus WS-320M, www.amazon.com, © 1996-2007, Amazon.com, Inc. and its affiliates; p. 67: text adapted from www.linux.org, content available under terms of GFDL License; p. 72: adapted text 'Spellcheckers' and p. 105 adapted article, 'Desktop publishing' reprinted from *Understanding Computers* by Nathan Sheldroff, J Sterling Hutto and Ken Fromm, 1993; p. 84 article adapted from 'Tour the collectives of cyberspace' from BusinessWeek online, 20 June 2005; p. 146; article adapted from 'Game genres', www.ringsurf.com.

The publishers are grateful to the following for permission to reproduce copyright photographs and material:

Key: l = left, c = centre, t = top, b = bottom

ACE STOCK LIMITED/Alamy for p. 2(tl), Ian Shaw/Alamy for p. 2(tr), Wayne Eastep/Getty Images for p. 2(bl), Juliet Brauner/Alamy for p. 2(br), Elizabeth Whiting & Associates/Alamy for p. 5, Mark M. Lawrence/Corbis for p. 8(l), Geri Lavrov/Alamy for p. 8(r), Courtesy of Dell Inc. for p. 11 (l), Tahesi Takahara/Science Photo Library for p. 11(r), Intel Corporation, 2007 for p. 12(bl), PC World for p. 16(t), David Paul Morris/Getty Images for p. 16(c), Profimedia International s.r.o./Alamy for p. 16(b), Photo courtesy of Sun Microsystems, Inc. for p. 18, Gateway, Inc. for p. 19(t), for p. 19(c), Courtesy of Dell Inc. for p. 19(bl), (br), PlayStation and the PlayStation logo, PSP and PLAYSTATION 3 are trademarks or registered trademarks of Sony Computer Entertainment Inc. for p. 23(t), www.CartoonStock.com for p. 25, Source: Nuance Communications for p. 26, Paul Hardy/Corbis for p. 30, © Kodak for p. 31, Image courtesy of NEC Display Solutions for p. 34(tl), Courtesy of Dell Inc. for p. 34(tr), © Cambridge University Press, image courtesy thephotounit for p. 34(cl), with compliments of Pioneer GB Ltd for p. 34(cr), Canon Compact Photo Printer SELPHY CP750 for p. 41(l), Picture courtesy of EFI-Vutek for p. 41(tr), Image of Brother HL-4040CN provided courtesy of Brother Industries UK for p. 41(br), Sally Lancaster/Format Photographers for p. 42(tr), (cl), De Repentigny, PubliPhoto Diffusion/Science Photo Library for p. 42(cr), AbilityNet for p. 42(bl), ImageState/Alamy for p. 43, Textlink 9100Mobile for p. 44(cl), AbilityNet for p. 44(bl), Najlah Feanny/Corbis for p. 46(t), Picture courtesy of: GW Micro, Inc. for p. 46(b), for p. 48(b), Photograph courtesy of Toshiba for p. 49, Vadym Kharkivskiy/Alamy for p. 52, for p. 53, p. 55, Photo courtesy of D-Link Corporation for p. 57(tl), for p. 57(tlc), The EDGE Tech Corp for p. 57(tcr), © SanDisk for p. 57(tr), for p. 57(bl), The EDGE Tech Corp for p. 57(br), © SanDisk for p. 58, © Olympus for p. 59, © SanDisk for p. 60(r), © Creative Technology Limited for p. 60(l), Grain Belt Pictures/Alamy for p. 82, vario images GmbH & Co.KG/Alamy for p. 88, Tony Metaxas/Getty Images for p. 89, AFP/Getty Images for p. 90, www.CartoonStock.com for p. 92, Hekimian Julien/Corbis Sygma for p. 93, Steve Allen/Alamy for p. 101(br), Microsoft Encarta Premium 2007 box shot reprinted with permission from Microsoft Corporation for p. 110, Patrick Steel/Alamy for p. 111, Helen King/Corbis for p. 113(tr), Marcus Mok/Getty Images for p. 113(br), Helen King/Corbis for p. 117, WoodyStock/Alamy for p. 130, Teletext for p. 135(tl), Christoph Rosenberger/Alamy for p. 135(tcr), TomTom GO 720 images for p. 135(tr), Jack Sullivan/Alamy for p. 135(bl), Eurotech Ltd for p. 135(br), Nokia for p. 138(t), Jim Goldstein/Alamy for p. 139(br), Kim Kulish/Corbis for p. 145(t), Electronic Arts Limited for p. 145(tcr), Microsoft Xbox 360 box shot reprinted with permission from Microsoft Corporation for p. 145(tcl), Justin Leighton/Alamy for p. 145(cr), S.T. Yip Conceptual/Alamy for p. 145(br), Microsoft Game Studios for p. 146, © Honda for p. 150(tl), Don Farrall/Getty Images for p. 152, Cartoon by Patrick Blower for p. 154.

Logos and screenshots

p. 65 Microsoft Windows Vista Ultimate Desktop screenshot reprinted with permission from Microsoft Corporation; p. 84 screenshot <http://www.cambridge.org/elt/resources/professional/>, © Cambridge University Press 2005; p. 85 eBay screenshot. These materials have been reproduced with the permission of eBay Inc. © EBAY INC. All Rights Reserved. p. 85 Facebook screenshot, Facebook © 2007; p. 85 MySpace screenshot, © 2003-2007 MySpace. All Rights Reserved. p. 90 Microsoft Live Messenger logo, © 2007 Microsoft Corporation; p. 114: Yahoo! screenshot, reproduced with permission of Yahoo! Inc. © 2007 by Yahoo! Inc. YAHOO! and the YAHOO! logo are trademarks of Yahoo! Inc. p. 118 The TPS report screenshot, www.tpsreport.co.uk, Matthew Robinson © 2007; p. 125 Java Powered logo with permission of Sun Microsystems, Inc. Java and the Java Coffee Cup logo are trademarks or registered trademarks of Sun Microsystems, Inc. in the United States and other countries and are used by permission. p. 145: World of Warcraft screenshot, © 2007 Blizzard Entertainment Inc. All Rights Reserved. All Microsoft product screenshots reprinted with permission from Microsoft Corporation.

Trademarks and registered trademarks are the property of their respective companies.

Designed and produced by eMC Design Ltd, www.emcdesign.org.uk

Picture research by Veena Holkar. Audio production by Penelope Reid.

1

Computers today

Unit	page
1 Living in a digital age	2
2 Computer essentials	7
3 Inside the system	11
4 Buying a computer	16

Learning objectives

In this module, you will:


- talk and write about computer applications in everyday life.
- study the basic structure of a computer system.
- study the differences between certain types of computer.
- learn how to classify computer devices.
- learn about the structure and functions of the CPU.
- learn how to distinguish between RAM and ROM.
- learn about how memory is measured.
- learn and use relative pronouns.
- learn how to enquire about computers in a shop.
- learn how to understand the technical specs of different computers.

1 The digital age

A Match the captions (1–4) with the pictures (a–d).

- 1 In education, computers can make all the difference
- 2 Using a cashpoint, or ATM
- 3 The Internet in your pocket
- 4 Controlling air traffic



B  How are computers used in the situations above? In pairs, discuss your ideas.

C Read the text and check your answers to B.

The digital age

We are now living in what some people call *the digital age*, meaning that computers have become an essential part of our lives. Young people who have grown up with PCs and mobile phones are often called *the digital generation*. Computers help students to **perform** mathematical **operations** and improve their maths skills. They are used to **access the Internet**, to **do** basic **research** and to

communicate with other students around the world. Teachers use projectors and interactive whiteboards to **give presentations** and teach sciences, history or language courses. PCs are also used for administrative purposes – schools use word processors to **write letters**, and databases to **keep records** of students and teachers. A school website allows teachers to publish **exercises** for students to **complete** online.

Students can also enrol for courses via the website and parents can download official reports.

20 Mobiles let you **make** voice **calls**, **send texts**, email people and download logos, ringtones or games. With a built-in camera you can send pictures and make video calls in *face-to-face* mode. New smartphones combine a telephone with web access, video, a games console, an MP3 player, a personal digital assistant (PDA) and a GPS navigation system, all in one.

25 In banks, computers **store information** about the money held by each customer and enable staff to **access** large **databases** and to **carry out** financial **transactions** at high speed. They also control the cashpoints, or ATMs (automatic teller machines), which **dispense money** to customers by the use of a PIN-protected card. People use a Chip and PIN

35 card to pay for goods and services. Instead of using a signature to verify payments, customers are asked to **enter a four-digit personal identification number (PIN)**, the same number used at cashpoints; this system makes transactions more secure. With online banking, clients can easily **pay bills** and **transfer money** from the comfort of their homes.

40 Airline pilots use computers to help them control the plane. For example, monitors **display data** about fuel consumption and weather conditions. In airport control towers, computers are used to manage radar systems and regulate air traffic. On the ground, airlines are connected to travel agencies by computer. Travel agents use computers to find out about the availability of flights, prices, times, stopovers and many other details.

D When you read a text, you will often see a new word that you don't recognize. If you can identify what type of word it is (noun, verb, adjective, etc.) it can help you guess the meaning.

Find the words (1–10) in the text above. Can you guess the meaning from context? Are they nouns, verbs, adjectives or adverbs? Write *n*, *v*, *adj* or *adv* next to each word.

- | | |
|----------------------------------|-----------------------------|
| 1 perform (line 6) _____ | 5 digital (line 25) _____ |
| 2 word processor (line 13) _____ | 7 store (line 27) _____ |
| 3 online (line 16) _____ | 8 financial (line 29) _____ |
| 4 download (line 18) _____ | 9 monitor (line 42) _____ |
| 6 built-in (line 21) _____ | 10 data (line 42) _____ |

E Match the words in D (1–10) with the correct meanings (a–j).

- | | |
|-----------------------------------|---|
| a keep, save _____ | g collection of facts or figures _____ |
| b execute, do _____ | h describes information that is recorded or broadcast using computers _____ |
| c monetary _____ | i program used for text manipulation _____ |
| d screen _____ | j copy files from a server to your PC or mobile _____ |
| e integrated _____ | |
| f connected to the Internet _____ | |

F  In pairs, discuss these questions.

- How are/were computers used in your school?
- How do you think computers will be used in school in the future?

2 Language work: collocations 1

A Look at the HELP box and then match the verbs (1–5) with the nouns (a–e) to make collocations from the text on pages 2–3.

- | | |
|------------|-----------------|
| 1 give | a money |
| 2 keep | b a PIN |
| 3 access | c databases |
| 4 enter | d presentations |
| 5 transfer | e records |

B Use collocations from A and the HELP box to complete these sentences.


- Thanks to Wi-Fi, it's now easy to _____ from cafés, hotels, parks and many other public places.
- Online banking lets you _____ between your accounts easily and securely.
- Skype is a technology that enables users to _____ over the Internet for free.
- In many universities, students are encouraged to _____ using PowerPoint in order to make their talks more visually attractive.
- The Web has revolutionized the way people _____ – with sites such as *Google* and *Wikipedia*, you can find the information you need in seconds.
- Cookies* allow a website to _____ on a user's machine and later retrieve it; when you visit the website again, it remembers your preferences.
- With the latest mobile phones, you can _____ with multimedia attachments – pictures, audio, even video.

HELP box

Collocations 1

Verbs and nouns often go together in English to make set phrases, for example **access the Internet**. These word combinations are called **collocations**, and they are very common. Learning collocations instead of individual words can help you remember which verb to use with which noun. Here are some examples from the text on pages 2–3: **perform operations, do research, make calls, send texts, display data, write letters, store information, complete exercises, carry out transactions.**

3 Computers at work

A  Listen to four people talking about how they use computers at work. Write each speaker's job in the table.

electrical engineer secretary librarian composer		
Speaker	Job	What they use computers for
1		
2		
3		
4		

B  Listen again and write what each speaker uses their computer for.