

# Answer key

- 0.1** Nouns: Internet, design, microchips (print can also be a noun)  
Verbs: print, design  
Adjectives: financial, electronic
- 0.2** 1 design 3 microchips 5 financial  
2 Internet 4 print 6 electronic
- 0.3** 1 microchips 3 financial 5 Internet  
2 design 4 electronic 6 print
- 0.4** 1 teleworking 4 translation of *switch on* 6 communicator  
2 calculating in your language 7 mobile phone  
3 calculations 5 interact, (teleworking) 8 typewriter
- 0.5** 1 a 2 d 3 e 4 c 5 b

## You and computers

Possible answers

- 1 hardware (COMPUTER)** /'hɑ:d.wei/ US /'hɑ:rd.wer/ *noun* [U] the physical and electronic parts of a computer, rather than the instructions it follows
- 2 software** /'sɒft.wei/ US /'sɔ:ft.wer/ *noun* [U] the instructions which control what a computer does; computer programs: *He's written a piece of software which calculates your tax returns for you.*

(Cambridge Advanced Learner's Dictionary)

- 1.1** 1 screen reader 3 interactive whiteboard  
2 head-mounted display 4 GPS, DVD recorder
- 1.2** 1 virtual reality 2 assistive technology 3 wireless network
- 1.3** 1 technological dependence 3 electronic waste 5 cybercrime  
2 computer addiction 4 loss of privacy
- 1.4** publishing: design online newspapers, publish e-books  
home: surf the Web, download files, retouch photos  
banks: make calculations, store information  
offices: write letters and faxes, send emails

## You and computers

Possible answers

At work, I use computers:

- to write letters and memos
- to make calculations and graphics
- to keep records of clients and suppliers
- to find out information on the Web
- to communicate with other companies or institutions via email or video conferencing
- to prepare business presentations
- to store information and do tasks related to my job

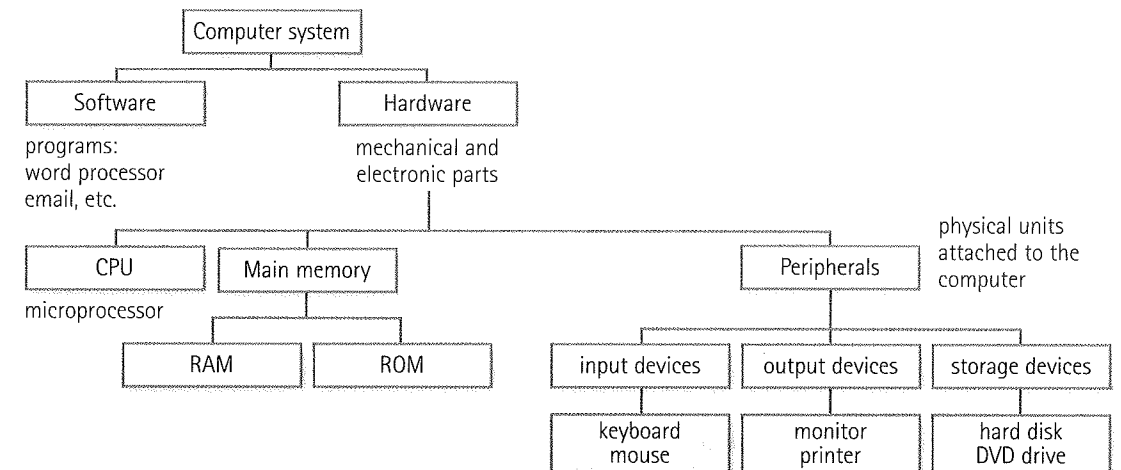
In my free time, I use computers:

- to play games
- to retouch photographs
- to download music from the Web
- to chat with friends and relatives
- to watch video clips and full-length movies
- to do online shopping

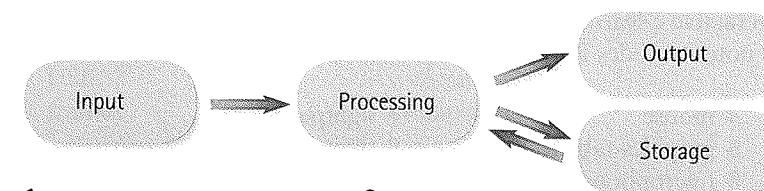
- 2.1** 1 CPU (central processing unit) 3 monitor 5 webcam  
2 mouse 4 printer 6 keyboard

- 2.2** 1 c 2 b 3 d 4 a

**2.3**



**2.4**



- 1 output 3 storage  
2 Processing 4 input

- 3.1** 1 personal digital assistant / PDA 4 wearable computer  
2 desktop PC 5 laptop / notebook  
3 mainframe 6 tablet PC

- 3.2** 1 a laptop / notebook 4 USB (Universal Serial Bus) ports  
2 a TFT screen 5 a Lithium-ion battery pack  
3 a touchpad

- 3.3** 1 hand-held 4 voice recognition  
2 stylus 5 handwriting recognition  
3 touch screen 6 wireless

You and computers

Possible answers

1 Benefits of PDAs:

- they can be carried and used easily
- with wireless technologies, they can access email or the Internet anytime, anywhere
- they can exchange (synchronize) data with desktop computers
- they are cheaper than notebooks / laptops
- pen-based systems can recognize handwritten characters

Limitations of PDAs:

- they are not powerful enough to run high-demanding applications
- they have limited storage capacity
- they may use batteries very quickly
- they have small screens, so it's not possible to display large tables or charts
- they may cause hand problems because of the small buttons

2 Benefits of laptops for business people:

- they are ideal for executives and for people who travel a lot
- they can be just as powerful as desktop PCs, with the additional benefit of freedom to move about
- they allow business people to transfer data, share services and communicate with the central office easily
- they are very useful for business presentations

3 Using tablet PCs in the classroom:

- they are ultra-light and take up little space, so they can easily be integrated into classes
- they enable learners and the teacher to 'write and draw' using digital ink
- learners can take notes with a stylus rather than a keyboard
- they can access the Internet via Wi-Fi (wireless) connection
- they can record audio files, such as a class lecture, to review later
- teachers can install interactive e-learning programs about different subjects
- they can convert their notes to slides for electronic projection

- 4.1 1 joystick                      4 mouse                      7 lightpen  
2 scanner                      5 graphics tablet                      8 digital camera  
3 barcode reader                      6 microphone

- 4.2 1 trackball                      3 webcam  
2 touch screens                      4 touchpad

- 4.3 1 alphanumeric keys                      6 Caps Lock  
2 function keys                      7 Backspace  
3 dedicated keys                      8 Ctrl  
4 cursor keys                      9 Enter / Return  
5 numeric keypad

- 4.4 1 double-click                      3 right-click  
2 click                      4 drag

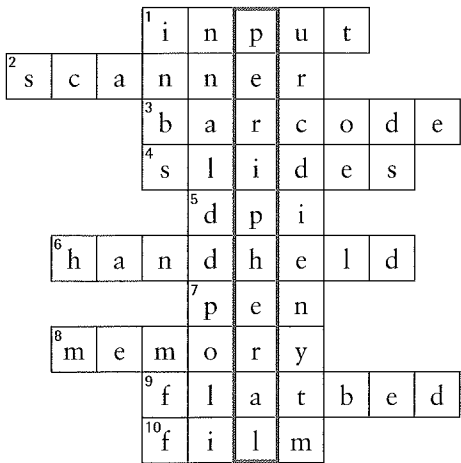
You and computers

Possible answers

1 The system converts voice into text, so you can dictate text into programs. The technology is particularly useful for dictating notes, memos, letters, emails, etc.  
You can also control the computer with voice commands; this means you can start programs, open files, save them in a particular format or print them, etc.

Some systems let you surf the Web or chat using your voice instead of the keyboard.  
The system helps blind people and other disabled users to communicate with their computer.  
2 In the future, a lot of people will use their voices to interact with computers. The idea of talking to a computer naturally (like a friend) seems reasonable. It will probably be very popular and a lot of people will find it very helpful.

5.1



- 5.2 1 False. The details detected by a scanner are determined by its resolution.  
2 True  
3 False. Most scanners can handle optical character recognition.  
4 False. A digital camera uses a memory card instead of a light sensitive film for storing the images.  
5 False. A digital video (DV) camera is used to record moving images.  
6 True

- 5.3 1 video conferences                      4 headset  
2 USB                      5 webcams  
3 frames                      6 megapixels

You and computers

Possible answers

1 At home: A scanner lets me scan my favourite photos and manipulate them on my computer.  
At work: A scanner has transformed the way I work; I capture documents and convert them into editable text using OCR software.  
2 My digital camera has a resolution of 7.2 megapixels. It comes with a 3-inch LCD screen and 60 MB of memory and can store up to 160 shots. I take photos and download them to my PC. Then I like to retouch them with photo editing software.  
We also have a digital video camera at work. We use it for video conferencing, where several executives of the company are linked together over a network and can see each other and collaborate.  
I have a camera phone – a mobile phone which has a built-in camera. It has a resolution of 7 megapixels. I take photos of places and friends. I can also record short video sequences and transmit video calls.

- 6.1 1 resolution                      5 printer  
2 dpi, dpi                      6 print server  
3 printout                      7 print spooler  
4 pages per minute (ppm)                      8 printer driver

## 6.2 Suggested answers

- |                   |                      |
|-------------------|----------------------|
| 1 ink-jet printer | 4 imagesetter        |
| 2 laser printer   | 5 dot-matrix printer |
| 3 plotter         |                      |

## 6.3

- |             |                             |
|-------------|-----------------------------|
| 1 cartridge | 4 impact printing           |
| 2 toner     | 5 page description language |
| 3 pins      | 6 multi-function printer    |

## You and computers

### Possible answer

I'd like to have a multi-function ink-jet printer. This type of printer is ideal for my needs because a single machine prints, faxes, copies and scans all sorts of documents, so it's much more economical than buying four separate machines.

My ideal printer is quite fast, with plenty of memory, a high-resolution scanner and a colour fax system. It includes five-colour cartridges, plus black, and produces photo quality colour printing. It's reliable and not very expensive.

I can also contact customer service by telephone or look at an official website, which has support for the printer and driver.

- 7.1 1 The images shown on a monitor are generated by the video card.  
 2 All visible colours can be made from mixing the three primary colours of red, green and blue.  
 3 Typical CRT-based displays occupy more space than LCD displays.  
 4 Active-matrix LCDs use a technology called thin film transistor or TFT.  
 5 The size of the screen is measured diagonally.

- 7.2 1 e 2 b 3 d 4 c 5 a

- 7.3 1 monitor 4 colour depth  
 2 screen size 5 brightness  
 3 resolution

- 7.4 1 home cinema 4 rear projection  
 2 front-screen projector 5 plasma display  
 3 digital light-processing

## You and computers

### Possible answer

The home cinema of my dreams:

A high-resolution LCD screen, with a 45-inch display mounted on the wall of my living room. The system has a built-in TV tuner and a digital terrestrial television (DTT) receiver which lets me watch hundreds of channels.

Just below the screen there is a DVD recorder with a 200 GB hard drive and a new Blu-ray disc player which I use to record and play back movies.

As for sound capabilities, a Bose Acoustimass system includes five speakers and a subwoofer. An Infrared transmission system enables me to enjoy high-quality surround sound and music without running wires from the front of the room to the rear speakers.

- 8.1 1 e 2 c 3 f 4 a 5 d 6 b

## 8.2

			1	c	h	i	p	s	
	2	b		i	n	a	r	y	
			3	s	l	o	t	s	
			4	c	l	o	c	k	
5	g	i	g	a	h	e	r	t	z
			6	b	u	s	e	s	
7	e	x	p	a	n	s	i	o	n
			8	b	i	o	s		
9	m	o	t	h	e	r	b	o	a
									r
									d

- 8.3 1 It runs at 2.4 GHz. 3 1,024 MB  
 2 Front Side Bus 4 Yes; RAM can be expanded up to 4 GB

- 8.4 1 byte 4 gigabyte  
 2 kilobyte 5 terabyte  
 3 megabyte

- 9.1 1 backup 4 tracks, sectors 7 portable hard drive  
 2 floppy disk drive 5 access time  
 3 hard disk 6 transfer rate

- 9.2 1 CD-RW / DVD-RW or DVD+RW  
 2 CD-R / DVD-R or DVD+R  
 3 CD-ROM / DVD-ROM  
 4 flash memory cards (e.g. CompactFlash)  
 5 flash drive  
 6 flash memory  
 7 format a disk

- 9.3 1 portable DVD player 3 headphones  
 2 widescreen 4 multi-format playback

## You and computers

### Possible answers

- 1 hard disk  
 2 CD-ROM or DVD-ROM  
 3 DVD  
 4 CD, DVD or music player (usually containing flash memory)  
 5 portable hard drive; DVD-R or DVD-RW discs (to store off-site for security purposes)  
 6 flash memory card within the camera, and then store the pictures on a CD or flash drive (pen drive) (of course, you can also store your photos on your hard disk)

- 10.1 1 d 2 c 3 a 4 f 5 g 6 e 7 b

- 10.2 1 ergonomics 4 recycle, electronic waste  
 2 repetitive strain injury 5 mobiles / mobile phones  
 3 eye strain 6 Internet addiction

You and computers

Possible answers

- 1 There should be adequate space around computers for peripherals, papers, books and other materials.  
Make sure computer users can work in a neutral and relaxed typing posture: desks should be the appropriate height; chairs should be adjustable; monitors should be positioned to reduce reflection from lights and windows, using blinds if necessary.
- 2 The school/college should buy ergonomic ICT equipment. Ergonomic keyboards, mice, copyholders, wrist rests and accessories will help reduce the chance of repetitive strain injury and carpal tunnel syndrome.
- 3 The location of cables and connectors must minimize the risk of electric shocks. Put cables out of the way so that people don't trip over them.  
The use of a wireless network may minimize the risks.  
All electrical equipment should be maintained regularly. Technical repairs of computers, network cables, sockets, video projectors, interactive whiteboards, etc. should be done by experts.
- 4 The school/college should promote good health and safety practice by putting up noticeboards and posters with health and safety recommendations:
  - basic information on eye strain, RSI, carpal tunnel syndrome and computer vision problems
  - advice on how to use ICT hardware and software correctly and safely
  - tips for an ergonomic workstation (seating posture, monitor, keyboard, etc.)
  - advice and information on Internet addiction.

- 11.1
  - 1 System software controls the basic functions of a computer, whereas application software lets you do specific tasks (e.g. writing letters or playing games).
  - 2 Operating system
  - 3 'Multitasking' means running various programs simultaneously.
  - 4 Unix
  - 5 Linux
  - 6 Mac OS
  - 7 Windows
  - 8 Windows, Icons, Menus and Pointer
  - 9 user-friendly

- 11.2
  - 1 pointer
  - 2 drop-down menu
  - 3 folder
  - 4 window
  - 5 program icon
  - 6 desktop
  - 7 document icon

- 11.3
  - 1 media player
  - 2 crashed disk rescuer
  - 3 accessibility program
  - 4 compression utility

You and computers

Possible answers


- 1 Windows is very popular because it's easy to use; everything is presented in graphic images.
- 2 Some operating systems designed for hand-held devices are: Windows Mobile (Pocket PC), used on most PDAs and smart phones; Palm OS, used on Palm hand-held devices; RIM, used on Blackberry communication devices, developed by Research In Motion.

- 12.1
  - 1 word processor
  - 2 menu bar
  - 3 typeface
  - 4 header
  - 5 footer
  - 6 layout
  - 7 merge

- 12.2
  - 1 align left
  - 2 cut and paste
  - 3 undo
  - 4 insert hyperlink
  - 5 graphics

- 12.3
  - 1 font
  - 2 word wrap
  - 3 Find and replace
  - 4 spell checker
  - 5 thesaurus
  - 6 toolbar
  - 7 Indenting

You and computers

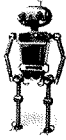


Mercury Robots  
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London SW10 6BA  
Phone 020 7385 1541  
Fax 020 7385 1390  
mercury@tinyworld.co.uk

Mr Vázquez  
Alonso Cano, 52  
Madrid

(1) Dear Mr Vázquez,  
Thank you for your interest in Mercury industrial robots.  
(2) Please find enclosed some descriptive leaflets with the technical details of six robots – Cobra and Hercules models. I would like to draw your attention to the *Cobra M2* which is designed for arc welding. The prices shown in our leaflets are net, but we offer discounts by negotiation. **Mercury Warranty** provides 2-year coverage.  
(3) We would be pleased to deliver one of our robot systems on approval, for your inspection.  
Please do not hesitate to contact us (4) if you require any further information.  
I look forward to hearing from you again soon.  
(5) Yours sincerely,

Liz Brown  
Sales Office Manager



Help for question 6: how to insert a picture from a Web page.  
1 On the Web page, right-click the picture, and then click Copy.  
2 In the text document, right-click where you want to insert the picture, and then click Paste.

- 13.1
  - 1 spreadsheet program
  - 2 column
  - 3 row
  - 4 cell
  - 5 active cell
  - 6 formulae
  - 7 functions
- 13.2
  - 1 database
  - 2 record
  - 3 field
  - 4 relational
  - 5 index
  - 6 sort
  - 7 query
- 13.3
  - 1 AutoNumber
  - 2 Text
  - 3 Number
  - 4 Memo
  - 5 OLE Object
  - 6 Yes/No
  - 7 Hyperlink
  - 8 OLE Object
  - 9 Date

You and computers

Possible answers

- 1 Date, Name and surname, Address, Telephone number, Diagnosis, Treatment, Doctor
- 2 Author, Title, Date, Publisher, ISBN, Subject, Doc Type, Language, Location

- 14.1**
- 1 Image manipulation program
  - 2 Business graphics program / presentation software
  - 3 Computer-aided design (CAD)
  - 4 Desktop publishing (DTP)
  - 5 Painting and drawing program / illustration package
  - 6 Geographic information systems (GIS)
  - 7 Computer animation
  - 8 Digital art / computer art

- 14.2**
- |           |             |            |
|-----------|-------------|------------|
| 1 bitmap  | 3 wireframe | 5 clip-art |
| 2 filters | 4 Rendering | 6 Fractals |

- 14.3**
- |              |                 |              |
|--------------|-----------------|--------------|
| 1 Zoom       | 5 Colour picker | 9 Shapes     |
| 2 Paintbrush | 6 Fill bucket   | 10 Airbrush  |
| 3 Curve      | 7 Line tool     | 11 Selection |
| 4 Eraser     | 8 Pencil        | 12 Text      |

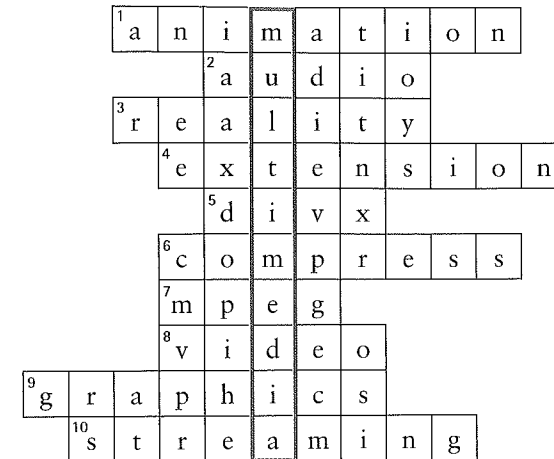
## You and computers

### Possible answers

- 1 In business, graphics software can be used to:
  - make drawings and designs for projects
  - generate business graphs and charts. For example, charts can be used to present statistics; a line graph can show how the price of petrol has risen over a number of years, etc.
  - make business presentations. Graphics usually convey information more effectively than numbers and text.
- 2 Computer graphics can be used to develop, model and test car designs before the actual parts are made; this saves money and time. CAD programs are also used to design Formula 1 cars.
- 3 At home: I use a popular photo and image program called Adobe Photoshop to retouch my favourite photos. I like adding special effects. I sometimes use the software that comes with my digital camera.

- 15.1**
- 1 hypertext
  - 2 burn music
  - 3 hypermedia
  - 4 .gif (graphics interchange format)  
.jpg (jpeg – joint photographic experts group)  
.tif (tagged image file)
  - 5 .pdf (portable document format)  
.doc (MS Word document)  
.rtf (rich text format)  
.htm / .html (hypertext markup language for the Web)
  - 6 .avi (audio video interleave)  
.mov (QuickTime movie)  
.mpg (mpeg – moving picture experts group)
  - 7 .wav (Windows wave audio format)  
.ra (RealAudio file)  
.mp3 (compressed music files)

**15.2**



Down: multimedia

- 15.3**
- |               |               |               |
|---------------|---------------|---------------|
| 1 consoles    | 3 graphics    | 5 Multiplayer |
| 2 Video games | 4 interactive |               |

## You and computers

### Possible answers

- 1 Yes, I have. For example, I use the *Encarta Encyclopedia*.
  - It is interactive; there are thousands of articles with hyperlinks to other articles.
  - It includes photographs and maps.
  - It also includes sound files and video clips.
  - It has a built-in atlas and dictionary.
- 2 In a multimedia presentation, the audience is not only informed but also emotionally involved; the message is more memorable.
- 3 Pros Video and computer games are amusing; they imply mental challenge; you can play online and interact with other people.  
Cons They show violence; they are addictive and create dependence; they may have negative effects on children.

- 16.1** Across: 1 plug-ins 2 audio 6 fileshare 7 audioblog  
Down: 1 podcasting 3 webcasts 4 streaming 5 Internet

- 16.2**
- |              |                    |            |
|--------------|--------------------|------------|
| 1 MP3 player | 4 iPods            | 7 MP3      |
| 2 hard drive | 5 built-in / flash | 8 ID3      |
| 3 memory     | 6 rip              | 9 ID3 tags |

- 16.3**
- |   |                                     |
|---|-------------------------------------|
| 1 speech recognition                          | 3 speech synthesis / text-to-speech |
| 2 MIDI (musical instrument digital interface) | 4 DAW (digital audio workstation)   |

- 17.1** 1 c 2 a 3 d 4 b 5 g 6 e 7 f

- 17.2**
- |                          |                                     |
|--------------------------|-------------------------------------|
| 1 Analyze the problem    | 4 Test the program and detect bugs  |
| 2 Make flowchart         | 5 Debug and correct it if necessary |
| 3 Write code and compile | 6 Document and maintain the program |

- 17.3**
- |                      |            |
|----------------------|------------|
| 1 dial               | 4 HTML     |
| 2 commands           | 5 VoiceXML |
| 3 Speech recognition |            |

- 18.1** a + b network analyst / systems analyst  
c + d software engineer / hardware engineer  
e + f database administrator / network administrator  
g + h help desk technician / trainer
- 18.2** A technical writer writes documentation of a program or device.  
A project manager controls all the operations and people in a project.  
A web designer plans and keeps websites updated.  
A security specialist designs applications against viruses.

- 18.3** 1 computer operator                      2 database analyst

- 18.4** 1 teleworking / telecommuting                      4 online teachers  
2 teleworkers    5 computer animators  
3 telemedicine    6 desktop publishers

**You and computers**

*Possible answers*  
1 I use a computer to write my projects, letters and documents and print them out. I can store them and use them again or modify them easily. I find and exchange information using the Web. I do online courses.  
2 Advantages: independence, no traffic jams or commuting to work  
Disadvantages: loneliness, inactive lifestyle, little human contact

- 19.1** 1 software                                      4 input                                      7 output  
2 hardware                                      5 processing                                      8 communication / feedback  
3 personnel                                      6 memory

- 19.2** 1 information system                      4 communication system  
2 control system                              5 information system  
3 control system /                              6 communication system  
communication system

- 19.3** Across: 1 DAB    3 call    4 Internet    5 fax  
Down: 1 digital    2 teletext

**You and computers**

*Possible answers*  
At home:  
I have a PAN (personal area network) with a PDA and a mobile phone to share and transmit information. I'd like to have a LAN (local area network), with more than one computer, sharing devices (printers, routers, etc.). I'd like to live in an 'intelligent home' where different gadgets and sensors are linked and controlled by a central computer.  
I have a digital television with lots of channels, which I can interact with in different ways.  
I have teletext on the television, with 24-hour information.  
  
We have these at work:  
An information system with the database of customers, products, etc.  
A WLAN (wireless local area network) where all the computers share information and devices.  
A telefax which includes a modem, to send copies of documents via different technologies.  
A factory assembly line with robotic elements.

- 20.1** *Suggested answers*  
1 LANs link computers which are near, usually in the same building. / WANs link computers that are placed far apart.  
2 In a peer-to-peer architecture, all workstations have the same capabilities. / In a client-server architecture, all the workstations are controlled by one computer.  
3 The word protocol refers to the standard of communication between devices in a network. / The word topology refers to the shape of the network.  
4 Routers are used to link two networks. / Routers are used to link a LAN to another network.  
5 Access points have to be connected to a wired LAN.  
6 Wireless adapters are necessary when you are using a WLAN.  
7 Hotspots can be found inside and outside buildings.  
8 The Internet is an example of a WAN.  
9 Wireless WANs use mobile telephone networks as linking devices.

- 20.2** 1 LAN, server                                      3 nodes                                      5 backbones  
2 peer-to-peer                                      4 WLAN                                      6 hub

- 20.3** 1 star    2 bus    3 tree    4 ring

- 20.4** a star

**You and computers**

*Possible answers*  
Advantages: they save money and time; you share hardware; they allow fast access to common files  
Disadvantages: there might be a danger of viruses spreading and of hackers accessing the system

- 21.1** 1 False. The WWW is a component of the Internet.  
2 True  
3 True  
4 False. They are two types of broadband connection.  
5 False. They are types of modem.  
6 True  
7 True

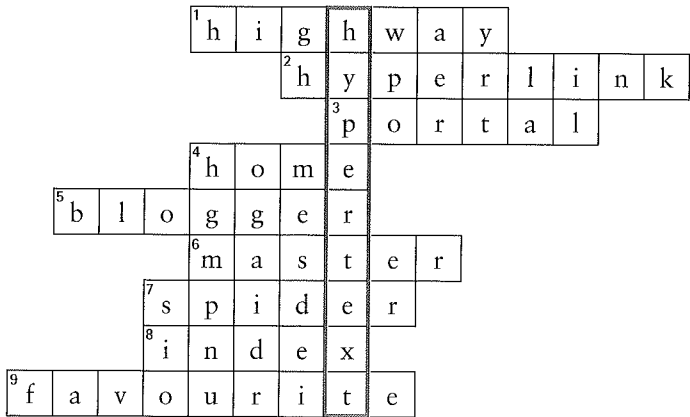
- 21.2** 1 mailing list / listserv                      5 FTP  
2 TELNET                                      6 email  
3 video conference                                      7 Internet telephone  
4 newsgroups                                      8 chat and instant messaging

- 21.3** 1 wireless                                      2 broadband                                      3 modem

- 22.1** 1 attachment                                      4 username                                      7 header  
2 snail mail                                      5 mail server                                      8 domain name  
3 smileys / emoticons                                      6 email                                      9 mailbox

- 22.2** 1 TO                                      4 subject  
2 signature                                      5 body  
3 CC  
Peter Swinburn's email server is a company (Jazzfree), Mary Jones has a Spanish server and Susan Wilt uses the popular webmail service, Hotmail.

- 22.3** 1 spam                                      3 spammers                                      5 email address  
2 newsgroups                                      4 mailing list



The hidden word is 'hypertext'.

- 23.2** 2 web browser 5 client 8 search engine  
3 URL 6 web page  
4 web server 7 website, surf
- 23.3** 1 weblog / blog 2 cybershopping / e-commerce 3 e-learning
- 23.4** a protocol (Hypertext Transfer Protocol) d path  
b a resource on the WWW e filename  
c domain name
- 24.1** Across: 4 WYSIWYG 6 editor 7 template  
Down: 1 builder 2 tags 3 source 5 HTML
- 24.2** 1 text 4 CSS 7 Graphics  
2 background 5 frame 8 JPEG  
3 table 6 link 9 GIF
- 24.3** 1 b 2 d 3 e 4 a 5 c
- 25.1** 1 IRC 5 audio 9 applet  
2 VoIP 6 chanops 10 contact  
3 VRML 7 client 11 web  
4 dimensional 8 chat
- 25.2** 1 chat room 3 avatars  
2 messaging, buddy, nicknames 4 video conferencing
- 26.1** 1 piracy, a 3 trojan horse, d 5 worm, e  
2 phishing, f 4 scam, b 6 cyberstalking, c
- 26.2** 1 malware 4 spyware 7 scanner  
2 digital certificate 5 virus  
3 firewall 6 antivirus

You and computers

Possible answers

1

I don't open email attachments unless I'm sure I know who's sending them.  
I never buy illegal programs.  
I back up my files.  
I don't download music from Internet websites I don't trust.  
I don't copy programs.  
I never trust email messages with wonderful offers or those that ask for personal details (bank account number, credit card, etc.).

2

I always keep my virus protection updated.  
There are hundreds of websites where free advice can be found and even some downloadable antivirus programs. Here are some examples:  
<http://securityresponse.symantec.com/>  
<http://www.f-secure.com/>  
<http://www.sophos.com/security/>  
<http://vil.nai.com/vil/default.aspx>  
<http://www.microsoft.com/security/antivirus/default.msp>  
To improve your computer security you should buy or download from the Web an antivirus program and make sure you keep it updated.  
Your computer system should have a firewall.

- 27.1** Across: 1 shopping 5 B2C 7 e-commerce  
Down: 1 SSL 2 online 3 gateway 4 B2B 6 C2C

- 27.2** 1 c (comparison engine) 4 a (log in / sign up)  
2 f (basket / cart) 5 e (account)  
3 b (checkout) 6 d (log out)

- 27.3** 1 Online shopping 3 auctions  
2 dotcoms, bricks and clicks 4 digital wallet

You and computers

Possible answers

Any shopping directory, e.g. [www.shopsafe.co.uk](http://www.shopsafe.co.uk), will include all types of services from alcoholic drinks to travel agencies, clothes, furniture, etc.

- 28.1** 1 brick-and-click banks 4 online banking / Internet banking  
2 wireless banking 5 brick-and-mortar banks  
3 virtual banks / Internet banks 6 electronic banking
- 28.2** 1 trade 3 check 5 funds 7 send  
2 pay 4 online statements 6 payments
- 28.3** 1 two-factor 3 security token 5 transaction authorization number  
2 PIN 4 biometric

You and computers

Possible answers

2

Advantages:  
It's very convenient: you can do transactions any time, anywhere, with just a computer or a mobile phone plus Internet connection.  
You can reduce your banking fees.  
You save time.

There is no waste of paper (envelopes, statements, etc.).

Disadvantages:

If you need cash, you will need an ATM or a brick-and-mortar bank.

You need to remember your password.

You may miss the human contact with a friendly bank clerk.

You must be absolutely sure the online institution offers a secure connection.

- 29.1** 1 cellular phones 4 coverage  
2 cells 5 range  
3 base stations 6 roaming

- 29.2** 1 True  
2 False. They introduced digital technology.  
3 False. It started to be used in the 90s.  
4 True  
5 False. People will be able to watch live TV on 4G phones.  
6 True  
7 True

- 29.3** 1 c 2 d 3 b 4 e 5 a

- 30.1** 1 sensors 4 actuator 7 computer system  
2 end effector 5 robot  
3 joints 6 automata

- 30.2** 1 mobile robot 3 surgical robot 5 robotic arm  
2 planetary rover 4 space probe

- 30.3** 1 Artificial Intelligence 3 Neural networks  
2 androids 4 Expert systems

## You and computers

*Possible answers*

Cleaning robots, lawn-mowing robots, robotic guides, deep sea explorers, help desk technicians, etc.

- 31.1** Across: 3 Bluetooth 6 interfaces 7 wireless 9 initiator  
Down: 1 automation 2 robotics 4 intelligent 5 receiver 7 wired 8 PAN

- 31.2** 1 Security, safety, comfort and economy. There is no reference to assistive technology.  
2 It can turn lights on and off, control the heating, control security and safety systems, detect problems and act accordingly, e.g. tell the owner to phone a plumber.  
3 The main interface is a mobile phone. There is an information and control system in the house that receives instructions from the phone.  
In the future, the home will respond to voice commands.

- 32.1** 1 DNA computer 3 Nanotechnology 5 nanocomputer  
2 quantum computer 4 nanobots

- 32.2** 1 immersive Internet 4 intelligent robot  
2 mobile TV 5 RFID – radio frequency identification tags  
3 wearable computer 6 gesture interface

- 32.3** 1 d 2 a 3 e 4 c 5 b

- 33.1** 1 teleconferencing 3 supersites 5 intranet  
2 Non-volatile 4 Semiconductors 6 interconnected

- 33.2** 1 unformatted 3 transmission 5 microbrowser  
2 extranet 4 reboot

- 33.3** 1 uninstall 4 decompresses 7 update  
2 encrypted 5 debug 8 defragment  
3 derypted 6 upload 9 upgrade

- 33.4** 1 cyberspace 3 e-zines 5 e-learning  
2 cyberslacking 4 e-commerce

## You and computers

*Possible answers*

cyberculture: the culture related to the use of computer networks in communication;

cyberculture has its own customs and etiquette

cybersquatting: when someone registers a famous name as an Internet address, so that they can sell it later at a high price to the person or organization with that name

cybercrime: criminal offences committed against or with the help of computer networks

cyberattack: an assault against a network or computer system

cybercast: using the Web to broadcast information or entertainment

e-card: an electronic card, digital card or postcard created on the Web and sent to somebody via the Web

e-calling: making telephone calls from your computer; synonymous with IP telephony

e-cash: electronic cash, digital money provided by a special bank, which can be used to buy goods and services from online shops which accept this form of payment

e-book: an electronic book, a book that is published in electronic form, for example on the Internet or on a disc, and not printed on paper

e-signature: a set of electronic symbols used or authorized by an individual to be the legally binding equivalent of the individual's handwritten signature (A digital signature is an electronic signature which uses some form of encryption to ensure that the identity of the signer can be verified.)

- 34.1** 1 software engineer 3 animator 5 manufacturer  
2 computer consultant 4 typist 6 computer technician

- 34.2** 1 powerful 4 computerize 7 electronics  
2 accessible 5 erasable 8 wireless  
3 attachment 6 security 9 simulation

- 34.3** 1 magnetism 3 recorder 5 digitizer  
2 magnetic 4 recordable 6 digitally

- 34.4** 1 spyware 3 malware 5 groupware  
2 shareware 4 adware 6 freeware

- 35.1** 1 silicon chip 3 control panel 5 address bus  
2 web portal 4 recording head

- 35.2** 1 Mail merge 3 self-test 5 software engineer  
2 add-on 4 search engine

- 35.3** Across: 1 setup / set-up 4 scrollbar 5 clipboard 6 broadband  
Down: 1 shortcut 2 smartcard / smart card 3 bandwidth



- 35.4

1 voice-activated

2 stand-alone

3 menu-driven

4 hands-free

5 object-oriented

6 space-saving
- 36.1

1 d

2 e

3 c

4 a

5 h

6 b

7 f

8 g
- 36.2

1 wireless hotspots

2 plug and play

3 hacking into a computer

4 drag and drop

5 highly sensitive
- 36.3

1 outgoing

2 instant, install, into

3 CDs

4 stream

5 real

6 freely

7 onto
- 36.4

1 Internet

2 electronic

3 virtual

4 high-speed

5 data

6 online

7 interactive

8 emails

9 Web
- 37.1

1 b

2 d

3 a

4 e

5 c
- 37.2

1 that / which

2 who

3 where

4 that / which

37.3 A computer consists of hardware and software.  
... constitute what is known as hardware ...  
... are the basic parts of the CPU.  
The RAM and the ROM make up the main memory.  
Peripherals are classified into three types: ...  
Software can be divided into two categories: ...  
... which includes operating systems, ...  
... which comprises programs that ...

- 37.4

1 There are four main classes of

2 are made up of

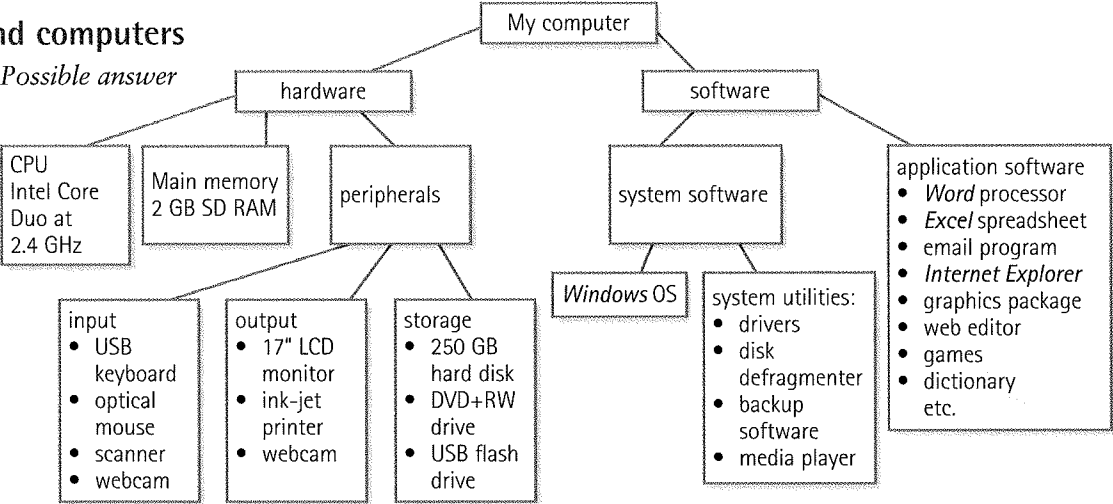
3 is composed of

4 There are two types of

5 is a type of

You and computers

Possible answer



- 38.1

1 highly demanding

2 high-end

3 fast

4 plentiful

5 low-end

6 expandable
- 38.2

1 spacious

2 separate, integrated

3 compatible

4 reliable

- 38.3

1 Both

2 similar

3 While

4 more

5 than

6 slimmer

7 Unlike

8 as well as

9 more

10 but

11 as

12 best

13 the

- 39.1

1 converted, digitized, processed

2 displayed

3 fed

- 39.2

Across: 1 customized

6 uploaded

8 hooked

9 held

Down: 2 upgraded

3 threaded

4 defragmented

5 set

7 posted

- 39.3

1 d

2 b

3 a

4 f

5 c

6 e

You and computers

Possible answer

First the computer must be switched on. Once the OS has booted up, you can run the word processor. Then the document is typed in. It can be edited: for example, graphics can be inserted. Next the file should be saved before it is printed. Finally, your computer should be switched off.

- 40.1

1 error message / dialogue box

2 debugging

3 help desk

4 help desk technician / troubleshooting

- 40.2

1 i

2 d

3 b

4 g

5 e

6 a

7 c

8 h

9 f

- 40.3

1 cooling fan

2 UPS (uninterruptible power supply)

3 recovery tool

4 back up

5 turn

6 reboot

You and computers

Possible answers

My computer displayed an error message.  
The monitor flickered.  
I lost some important files.  
I wasn't able to connect to the Internet.  
The computer was affected by a virus.  
It ran short of memory.  
The monitor showed a blue screen with a warning message.

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The numbers in the index are **Unit** numbers not page numbers.

Acronyms are pronounced as individual letters where no pronunciation is shown, e.g. ADSL.

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WWW, the World Wide Web, the Web /ðə ˌwɜːld ˌwaɪd ˈweb, ðə ˈweb/ 21, 23

WYSIWYG (What You See Is What You Get) /ˈwɪziwɪɡ/ 24  
yes/no /ˈjesnəʊ/ 13  
zoom /zuːm/ 14

## Describing function 37

a device used to transmit  
a device for transmitting  
a device which/that transmits  
a device which/that is used to transmit  
a person who ...  
the area where ...

## Classifying 37

... are classified into X types/  
categories  
... can be divided into X types/  
categories  
... include  
... consists of  
... is made up of  
... is composed of  
... comprise  
there are X types of ...  
there are X classes of ...  
there are X categories of ...  
... is a type of  
... are parts of  
... are components of  
... constitute  
... make up

## Comparison 38

as good as  
less money  
more quality than  
more manageable than  
more easily  
slimmer than  
the more memory ... the  
faster  
the best

## Contrast 38

but  
unlike  
while

## Similarity 38

as well as  
similar  
both ... and ...

## Passive verbs 39

be converted  
be customized  
be defragmented  
be digitized  
be displayed  
be fed into  
be held  
be hooked up  
be posted  
be processed  
be set up  
be threaded  
be upgraded  
be uploaded

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