

English for Information Technology

2

Vocational English
Course Book

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2

IT systems

- give hardware specifications
- give instructions for using a GUI
- describe different multimedia types
- explain OS installation

System specifications

Speaking 1 Work in small groups. What is the difference between peripherals and internal hardware? Name as many of each as you can. Can you install any?

Vocabulary 2 Are these items *internal components* (I), *peripherals* (P) or *storage* (S)? For some items, there may be more than one possible answer.

- | | |
|---------------------|----------------------|
| 1 external drive | 7 mouse |
| 2 hard disk drive | 8 memory |
| 3 headphones | 9 monitor |
| 4 optical drive | 10 power supply unit |
| 5 keyboard | 11 printer |
| 6 solid state drive | 12 screen |

Listening 3 07 Listen to a technician describing the motherboard to a new trainee. Match these words to A–G in the photo below.

- | | | |
|----------------|------------------------|------------|
| 1 audio socket | 4 Ethernet connector | 7 USB port |
| 2 CPU socket | 5 graphics card socket | |
| 3 DIMM slot | 6 SATA socket | |



Language

Large and small numbers

For **decimal values**, we say 'point' for the decimal point and pronounce the next numbers individually. We don't always mention the 0 to the left of the decimal point for values less than 1.

It's 0.54 millimetres long. ('nought point five four' or 'point five four', NOT 'nought point fifty-four')

To express large and small numbers, we often use **prefixes**. For example, *kilo-* means '1,000'. The main stress is on the first syllable of the prefix.

a 3.6-kilobyte file

4 Match the prefixes in the box to these numbers.

dual-	giga-	kilo-	mega-	micro-	milli-	nano-
quad-	tera-					

- | | | | | | |
|-------|-------------------|---|-------------------|---|-----------------|
| 1 | 1,000,000,000,000 | 3 | 1,000,000 _____ | 7 | 1,000,000 _____ |
| _____ | _____ | 4 | 1,000 _____ | 8 | 4 _____ |
| 2 | 1,000,000,000 | 5 | 0.000000001 _____ | 9 | 2 _____ |
| _____ | _____ | 6 | 0.000001 _____ | | |

Pronunciation

5  Listen and underline the stressed syllables in these words. Then practise saying the words with a partner.

- | | |
|------------------------------|----------------------|
| 1 a dual-core processor | 5 18 nanometres |
| 2 a quad-speed Blu-ray drive | 6 a 26-kilobyte file |
| 3 a 3.5-millimetre socket | 7 2.4 megahertz |
| 4 a micrometre | 8 4 terabytes |

Listening

6  Listen to an IT manager and assistant talking about a problem with a delivery of new computers. Correct this delivery slip to show what was ordered.

Order for: Wood Publishing

5 × Expression 5710 laptop computers with the following specifications:

- Entel 2.73 GHz dual-core CPU
- 1 × 390 GB SSD
- 8 GB dual-channel DDR3 1666 MHz RAM
- Ladeon 3850 1 GB graphics card
- No optical drive
- 15.6-inch WLED 1920 × 1080 screen
- 4 × USB ports
- No operating system installed
- 1 year next business day on-site service

10 × Domination 8720 desktop computers

- Entel 3.4 GHz quad-core CPU
- 1 × Eastern Digital 2 TB 7200 rpm SATA HDD
- 16 GB 2000 MHz memory
- Ladeon 7950 2 GB graphics card
- 6 × Blu-ray combo optical drive (Blu-ray, DVD+/-RW & CD)
- 4 × USB ports
- 802.11n WLAN wi-fi mini card
- No operating system installed
- 1 year next business day on-site service



Dingle
Digital
Hardware
Supplies

Speaking

7 Work in pairs. Roleplay the conversation the IT manager in 6 will have with the supplier, Dingle Digital.

Hi, we ordered some new computers from you but the order is wrong. We ordered laptops with ... but they came with ...

8 Work in pairs. Write some specifications for a computer. Then ask and answer questions about your partner's computer. Think about these things:

- | | |
|-------------------|---------------------|
| • processor speed | • hard drive size |
| • memory | • screen resolution |

A: How fast is the processor?

B: It's 2.84 megahertz.

9 Work in pairs. Suggest specifications for computers for these people. Then compare your answers with another pair.

- 1 computers for administration staff
- 2 a computer for a designer
- 3 a server for a small business
- 4 a computer for a sales person

I don't think admin staff need a fast processor. They only need it for word processing and email. What about a two-gigahertz processor?

GUI operations

Speaking

GUI = graphical user interface

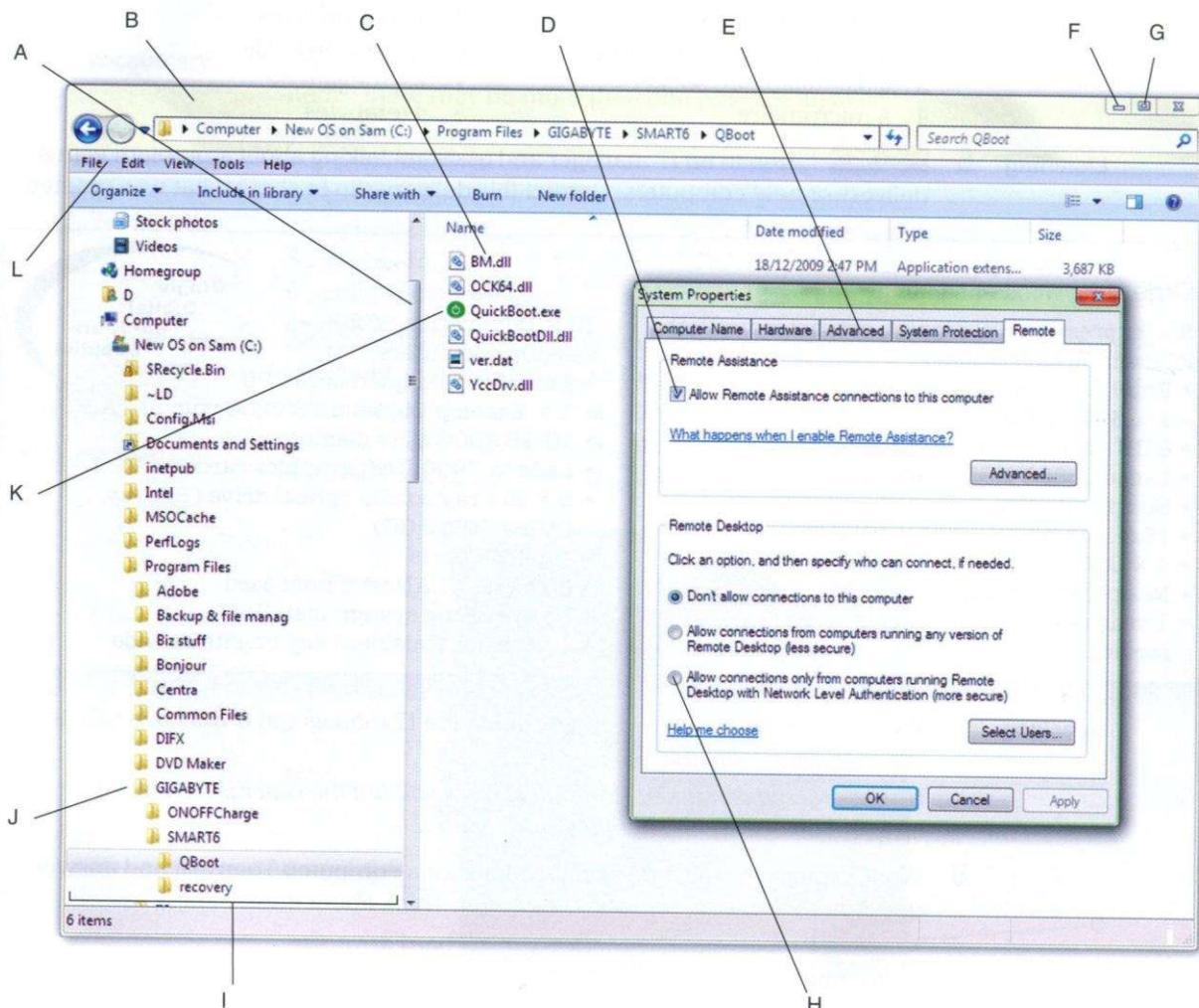
Vocabulary

- 1** Work in pairs. Look at the screenshot in 2. What different things can you do to a window?

You can resize it.

- 2** Match these words to A–L in the screenshot below.

- | | | |
|---------------------|-------------|------------------|
| 1 scroll bar | 5 title bar | 9 left-hand pane |
| 2 menu | 6 icon | 10 tab |
| 3 'Minimise' button | 7 folder | 11 check box |
| 4 'Maximise' button | 8 filename | 12 radio button |



- 3** Work in pairs. Match actions 1–7 to their results a–g.

- | | |
|---------------------------------|---------------------------------------|
| 1 Double click on the title bar | a) to open a new menu. |
| 2 Click on a menu | b) and the window fills the screen. |
| 3 Right-click on an icon | c) if you want to move the window. |
| 4 Slide the scrollbar down | d) to hide the window. |
| 5 Click the 'Minimise' button | e) to scroll the window down. |
| 6 Drag the title bar | f) to open it. |
| 7 Select the icon | g) and its background changes colour. |

Listening 4  Listen to a help desk technician talking to an IT user. What information is the technician looking for?

5 Listen again. Number the instructions in the order you hear them.

- Choose 'Properties' from the menu.
- Just select 'Manage'.
- Select 'Install date'.
- Choose the 'Details' tab.
- Just right-click where it says 'Disk 0'.
- Can you scroll up to the top?

Language

Giving instructions

We often use **imperatives** to give instructions. We use 'softeners' such as *could you*, *can you* and *just* to make the instructions sound more polite.

*Drag the window to the left.
Could you just double click on the bottom icon?*

We use **sequencers** (e.g. *first*, *then*, *next*, *after that*, *finally*) to show the order of the steps.

First, just click on the 'Start' button. Then select 'Shut down' in the bottom right corner.

6 Look at the instructions in 5. Underline the imperatives. What softeners does the speaker use?

Speaking 7 Work in pairs. Take turns being an IT help desk technician and an IT user. Use these prompts to explain to your partner how to follow the steps for each action.

'Start' button → 'Control Panel' → 'System and Security' heading → under 'System': 'View amount of RAM and processor speed'

A: *First, could you click on the 'Start' button?*

B: *Sure.*

A: *Then select 'Control Panel'. A box will appear.*

B: *OK.*

A: *Click where it says 'System and Security', then 'View amount of RAM and processor speed', under 'System'.*

B: *Got it! Thanks very much.*

1 'Start' button → Mozilla Firefox → double click/title bar

2 right-click on 'c:' drive → 'Properties' → 'Sharing' tab → 'Advanced Sharing' → 'Share this folder' check box → 'OK' → 'Close'

3 press 'Start' key and 'E' key to open Windows Explorer → 'Uninstall or change a program' at top → find 'Anki' → right-click → select 'Uninstall'

4 find clock on bottom right of screen → right-click it → 'Adjust date/time' in pop-up menu → 'Change time zone' button → '(UTC+09.00) Osaka, Sapporo, Tokyo' in drop-down menu → 'OK' → 'OK'

5 'Start' button → 'Control Panel' → 'Appearance and Personalization' heading → 'Display' heading → 'Magnifier tool' link

8 Work in pairs. Take turns to explain these actions. Look at the prompts in 7 or use your own ideas.

how to close a program

First, go to the 'File' menu. Then click 'Exit'. Or click the 'x' in the top right-hand corner of the window.

1 how to open a program

3 how to change a program's settings

2 how to save a file

4 how to delete a file

Writing 9 Write an email explaining the steps for one of the actions in 7.



Multimedia hardware

Speaking

1 Work in pairs or small groups. Answer these questions.

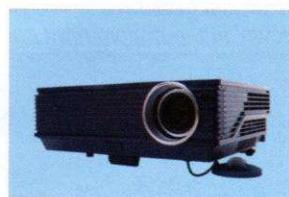
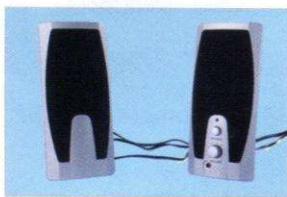
- 1 What do you use computers for? List as many uses as you can.
- 2 Which items on your list from question 1 use the items in the box?
- 3 Which other computer tasks use the items in the box?

audio graphics images video

Vocabulary

2 Label the photos with the multimedia equipment in the box.

headphones microphone projector speakers video camera
virtual reality goggles webcam



1 _____

2 _____

3 _____

4 _____



5 _____

6 _____

7 _____

Speaking

3 Work in pairs. Who might use each of the items in 2? What might they use them for?

Reading

4 Read this email quickly. What does Kamal want to do?

Inbox

Subject: Connecting a projector

Hi Kamal,

It should be quite easy to connect your laptop to a projector. First, check that both the laptop and the projector are off. Then connect the projector cable to the laptop: just plug it into the video socket. Most laptops have one, usually at the back or side. After that, insert the projector's power cable into a power socket and turn on the computer and the projector. Next, the computer has to find out the projector's resolution: press the 'Function' key ('Fn') on the laptop and, at the same time, press the key with a picture of a screen on it. The 'Fn' key is usually on the bottom left, near the 'Shift' key, and the key with the screen picture on it is usually on the top row of keys, on the left.

Don't forget to switch off the equipment and unplug the projector from the computer when you've finished.

Best wishes,
Natasha

Vocabulary **5** Match words 1–8 from the email in 4 to words a–h with a similar meaning.

- | | |
|----------------|-----------------------|
| 1 cable | a) push |
| 2 plug (into) | b) put (into) |
| 3 insert | c) connect |
| 4 power socket | d) connector |
| 5 turn on | e) turn off |
| 6 press | f) electricity socket |
| 7 unplug | g) switch on |
| 8 switch off | h) disconnect |

6 Complete these prepositional verbs.

- | | |
|-----------------|--------------------|
| 1 connect _____ | 3 unplug _____ |
| 2 plug _____ | 4 disconnect _____ |

Language

Sentences with two objects

Some sentences have **two objects**. We often use a preposition between the two objects (verb + object of verb + preposition + object of preposition).

*I unplugged the cable from the computer.
Insert the plug into the socket.*

7 Read the email in 4 again and complete these instructions. Use two objects where appropriate.

Switch off the computer and the projector.

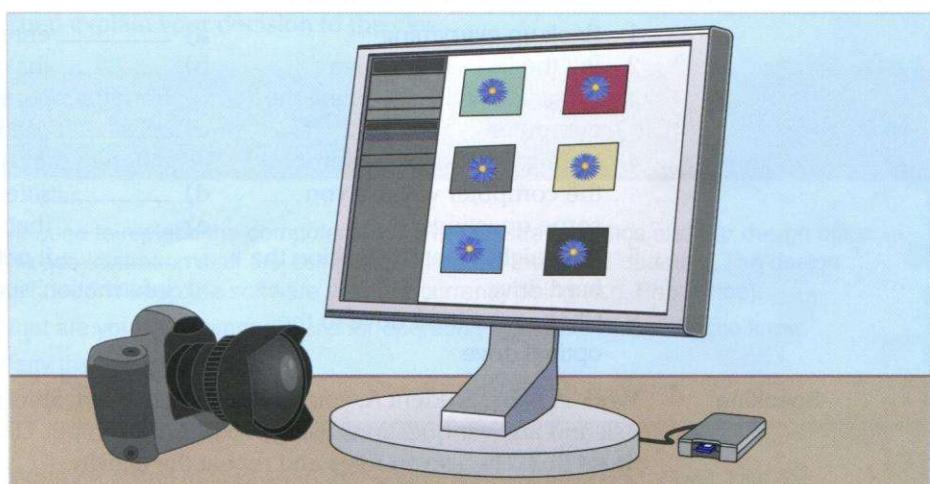
- | | |
|-----------------|------------------------------|
| 1 Plug _____. | 4 Push _____. |
| 2 Plug _____. | 5 When finished, turn _____. |
| 3 Switch _____. | 6 Disconnect _____. |

Writing **8** Work in pairs. Read the email in 4 again and mark the features below. What other forms of greetings and signing off can you think of?

- the greeting • a paragraph • signing off

9 Write an email explaining how to transfer photographs from a digital camera to a computer. Give instructions for the steps below. Include the features from 8 in your email.

- | | |
|-------------------------------------|-----------------------------|
| • card reader → computer | • select destination folder |
| • open software | • ‘OK’ button |
| • select card reader/drop down menu | |



Operating systems

Reading

- 1 Work in pairs. Put these steps in reinstalling an operating system in the correct order.

- During the process, the computer will restart by itself several times.
- Near the end of the process, you can partition the hard drives.
- In the BIOS, set the first boot drive to DVD. Then reboot again.
- At the end of the process, the operating system will ask for the product key, time, date, network type and details for user accounts.
- First, put the installation DVD into the optical drive. Then reboot the computer while you press the 'F2' key. The BIOS will now start.
- This time, the computer will boot from the DVD and installation will begin.
- Before you start, back up everything.
- Near the start of the process, it will ask you to agree to the licence terms.

Vocabulary

- 2 Find words in 1 that match these definitions.

- 1 start again _____
- 2 split a hard drive into parts that act like separate drives _____
- 3 software built into a computer that controls how it starts up _____
- 4 the drive that the computer reads first when starting up _____
- 5 software comes with this to show you are the owner _____
- 6 settings for a user _____
- 7 switch a computer off and on again _____
- 8 a series of actions to do something _____
- 9 copy data to another place so that you don't lose it _____
- 10 rules about how you can use software _____

Language

Expressing reason and purpose

We can use these forms to express reason and purpose:

- *for* + noun phrase
- *so that* + clause
- *to-infinitive*
- *because* + clause

Why should I update my OS?

For the new features.

So that you can use the new features.

To use the new features.

Because it has new features.

- 3 Work in pairs or small groups. Match 1–6 to a–f. Then complete the gaps with *because*, *so*, *to* or *for* to make sentences.

- | | |
|---|--|
| 1 Back up everything | a) _____ enter the BIOS. |
| 2 Put the DVD in the drive | b) _____ that the computer restarts from the operating system DVD. |
| 3 Press 'F2' while rebooting the computer | c) _____ use the different partitions for different purposes. |
| 4 During the installation process, the computer will ask you some questions | d) _____ safety. |
| 5 You might want to partition the hard drive | e) _____ that the process can start. |
| 6 Change the boot drive to the optical drive | f) _____ it needs to know some information, such as where you are. |

Speaking

- 4 Work in pairs. Student A, you are an IT technician. Student B, you are an IT user. Ask and answer questions using 1–6 in 3 as prompts. Give different reasons from those in 3. Then swap roles and repeat the activity.

Business matters

1 Work in small groups. What do you know about open source software? How is it different from proprietary software? Think about cost, who writes it and how much people use it.

Reading 2 Read this web article and check your answers in 1.

Open source: the way forward?

With open source software, what do people think about first? Money, usually, because open source software is free. But this isn't the only important thing. First, there is freedom from the software vendors. Organisations say that freedom is the number one reason to choose open source software. With open source software, an organisation doesn't have to follow the software vendor's decisions. With proprietary software the vendor controls software updates. For example, users can't add features to proprietary software themselves but they can add features to open source software.

Also, with open source software companies have more control of their data. Proprietary software often stores data in special ways that only the vendor understands. So, when a company wants to change to another vendor's software, moving the data to the new software can be very difficult. Open source software is different; open source software vendors explain their data clearly and openly so that they are not a secret. Because of this, moving data isn't a problem.

Sometimes people worry about open source operating systems. They think that their favourite software won't run on open source operating systems. However, this isn't true because there is a lot of office software, such as word processors and spreadsheets, for open source operating systems. In fact, there are many kinds of this software and they work well. It is only special areas, such as graphics design, where proprietary software is clearly better.

Listening 3 Listen to a spokesperson for a major operating system company giving a speech: 'Why open source is a bad idea'. What reasons does the speaker give to use proprietary software? Make a list.

Speaking 4 Use the article in 2 to make a list of reasons to use open source software. Then work in pairs. Give reasons for your answers and discuss any differences.

5 Work in small groups. You are technicians in an advertising company. You look after operating systems and software. Look at this email from your manager and decide whether to use an open source OS, a proprietary OS or some of each. Then explain your decision to the class.

Hi Peter,

We need to replace the computers in our administration office and our design office. The administration staff are using old computers that need updating. The design staff need to keep the software they are currently using (e.g. Photoshop).

What are your recommendations for operating systems? Please let me know.

Many thanks,

Yuriko

Writing 6 Write an email to your manager giving your recommendations. Use the Language box on page 18 and the information about writing emails on page 17.

4

Administration

- talk about past actions
- describe how to use databases
- explain sequences of system administration tasks
- explain how problems occur

Spreadsheets and formulae

Speaking

1 Work in small groups. Discuss these questions.

- 1 What do people use spreadsheets for?
- 2 Do you use spreadsheets? What for? What do you find easy/difficult about using them?

Vocabulary

/ means the same
as ÷

2 Work in pairs. Match sentences 1–4 to sums a–d. Then rewrite the sentences using the words in brackets.

- | | |
|---|-------------------|
| 1 If we divide 8 by 2, we get 4. (divided by) | a) $8 + 2 =$ |
| 2 If we subtract 2 from 8, we get 6. (minus) | b) $8 - 2 =$ |
| 3 If we multiply 8 by 2, we get 16. (times) | c) $8 / 2 =$ |
| 4 The sum of 8 and 2 is 10. (plus) | d) $8 \times 2 =$ |

8 divided by 2 is 4.

Speaking

3 Work in pairs. Write eight sums each but don't show your partner. Then take turns to read your sums to your partner for him/her to calculate.

- A: *What is 9 divided by 2?*
 B: *4.5. If you multiply 10 by 4.6, what do you get?*
 A: *46.*

Listening

4 Listen to a trainer explaining a formula in this spreadsheet. Match these words to A–F in the spreadsheet. What does the formula do?

- | | | |
|-------------|--------------|----------------|
| 1 cell __ | 3 formula __ | 5 value __ |
| 2 column __ | 4 row __ | 6 worksheet __ |

A: Home tab ribbon

B: Row 1 header 'Price'

C: Cell B3 containing £ 2.17

D: Formula bar showing '=SUM(B3:B5)'

E: Result cell B6 showing 14.61

F: Column H header

Speaking

we usually write
the multiplication
sign as \times but
spreadsheets often
use *

- 5** Work in pairs. Student A, look at the information on this page. Student B, look at the information on page 70. Follow the instructions.

Student A

Read these formulae to Student B. Then listen and write down the formulae Student B reads to you.

fx =if(A=20,B2,0)

equals if ... open bracket ... A equals 20 ... comma ...
B2 comma ... nought ... close bracket

1 fx =C2+(B7-B3)

2 fx =B7*C8/C9

3 fx =A2-SUM(B2:B20)

4 fx =SUM(C7:J7)-7

Language

Past simple

We use the past simple to describe finished actions or events in the past.

Regular verbs (e.g. *check, correct*) usually add *-ed*.

Irregular verbs (e.g. *be, go, get, choose, find*) have their own past simple forms.

We use *did/didn't + bare infinitive* in questions and negative sentences.

Did you check the formulae in the spreadsheet?

Yes, I did. I found one mistake. The others were all fine.
I corrected it straight away.

- 6** Read audio script 17 on page 75. Which tenses are used? Complete this sentence.

The speaker used the _____ to explain what a function does and the _____ to describe past events.

Listening

- 7**  Listen to four employees explaining their problems with spreadsheets. Complete this table.

Action	Problem
1 typed in a formula	get an error message
2	
3	
4	

Speaking

- 8** Work in pairs. Match these explanations and solutions to problems 1–4 in 7. Then roleplay the situations you heard.

- a) saved in another folder by mistake _____
- b) misspelt the function in the formula 1 _____
- c) need to right-click on the cell, select 'Format cells', then select 'Date' _____
- d) chose the wrong formula _____

A: Could you help me?

B: Yes, sure. What's the problem?

A: Well, I typed a formula into the spreadsheet but it gives me error messages every time I try to use it!

B: OK, I think you misspelt the function in the formula ...



- 9** Work in pairs. Take turns to describe an IT problem. Explain what happened and how you solved the problem. Then form new pairs and describe your first partner's problem to your new partner.

Peripherals

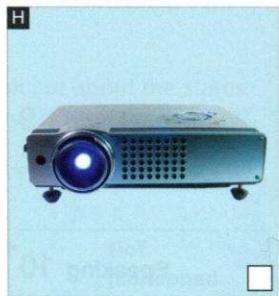
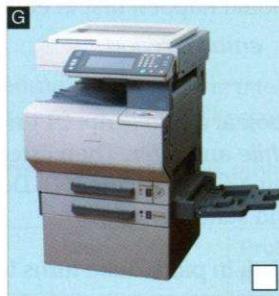
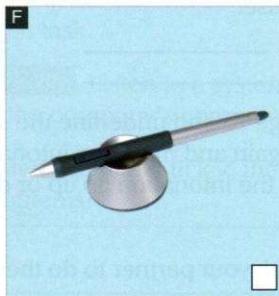
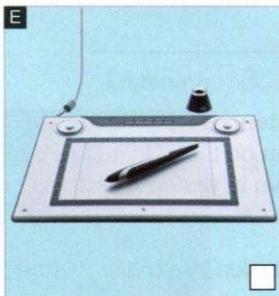
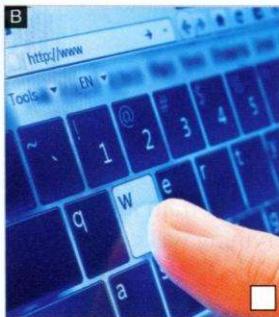
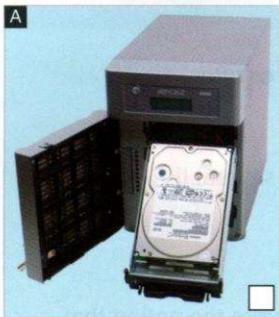
Speaking

- 1 Work in pairs. Make a list of as many peripheral devices (e.g. printer, screen) as you can. Then describe the items on your list to your partner. Can he/she guess what they are?

It's for listening to music. You wear it on your head.

Vocabulary

- 2 Match photos A–H to definitions 1–8.



1 NAS (network attached storage) device: a collection of drives in a single box, accessed through a network and thus more flexible than a device attached to only one computer ____

2 touchpad: part of a laptop computer used instead of a mouse for moving the cursor ____

3 stylus: a pen-shaped device sometimes used with some kinds of screens ____

4 graphics tablet and stylus: a flat pressure-sensitive pad and pen-shaped device, often used with graphic design software ____

5 touch screen: a screen that can detect when and where a finger touches it ____

6 projector: a device that shows a copy of the computer's screen on a large screen, often used in presentations ____

7 headset: a device people wear on their heads that includes a microphone as well as headphones ____

8 multifunction printer: a printer that also has other functions such as scanning, copying and/or faxing ____

- 3 Write *I* next to the input devices and *O* next to the output devices in 2. Which devices are both? Which device is neither?

Listening

- 4 Listen to an assistant systems administrator explaining a problem to his manager and complete this table.

Action in progress	Problems
The accountant _____ to save a spreadsheet to the NAS device.	1 _____ 2 _____ 3 _____

Language

Past continuous and past simple

We use the **past continuous** to talk about an action that was in progress at a particular point in the past. We also use it when we want to emphasise that a past action continued for some time.

When a shorter action happens in the middle of another longer action or suddenly ends it, we use the **past continuous** for the longer action and the **past simple** for the shorter action. We use *when* before the past simple and *while* before the past continuous.

*I was working at 2 p.m. yesterday.
I was working all night.*

*He was printing from the multifunction device **when** it stopped working.*

*The printer ran out of ink **while** I was using it.*

Speaking 5 Work in pairs. Take turns to explain these problems to your partner. Remember to say what you were doing at the time. Use the Language box to help you.

- 1 printer: paper jam
- 2 headset: sound/stop
- 3 graphic tablet: move stylus/cursor not move
- 4 projector: light/stop working

Writing 6 Choose one of the problems in 5. Write a short email to your company's IT Support Office explaining the problem.

Business matters

Speaking 1 Work in small groups. Read this scenario and choose three of the problems. Discuss possible solutions to the problems you chose.

You are assistants to your company's systems administrator, Zafia. She is away for a few days, so you were looking after the company's IT systems. A few problems occurred, which, together, you solved. Each day Zafia is away, you have to write an email to her explaining what happened during the day. Here are some of the problems you've had to solve:

- salesperson's laptop: hard drive crashed
- Marketing Department: want a new report in their database
- internet connection: several dropouts
- backup system: failed
- new employee: locked out of the human resources database
- projector: wrong cables

Writing 2 Complete this log. Use problems from 1 or problems of your own choice.

IT Department: daily log		
Time	Problem	Action taken
1		
2		
3		

Speaking 3 Work in pairs. Take turns to explain the problems from the log in 2 to your partner. Pay attention to the tenses you use, and use *while*, *before* or *after* where appropriate.

Writing 4 Read the scenario in 1 again and write an email to Zafia.

5

Choice

- compare products
- discuss IT costs
- research products
- recommend products

Web hosting

Speaking 1 Work in small groups. When you shop for IT-related items, how much time do you spend comparing items before you purchase them?

Vocabulary 2 Read this web page and find words that match these definitions.

- 1 a system in which each server has only one client's websites on it _____
- 2 promise to fix any problems _____
- 3 the time when the service is working _____
- 4 the smallest amount or number possible or necessary _____
- 5 the largest amount of data that can be moved _____
- 6 a unique number to identify a computer on the internet _____

HostElite

Do you want better security for your website than you get with shared hosting? Dedicated hosting may be right for you, with your own server in our secure data centre!

Choose from our plans or send us your specifications. We will replace hardware within 24 hours of any problem and we also guarantee 99.99% uptime.

We provide 24-7 support. You can choose between operating systems, which we can install using your licence, or you can purchase a licence from us. Under all plans, you will be able to host an unlimited number of websites and databases. All plans are for a minimum of six months.

	Basic server plan	Standard server plan	Premier server plan
No. of CPUs	1	2	4
CPU specs	Quad core, 3.0 GHz	8 core, 3.2 GHz	16 core, 3.2 GHz
Memory	8 GB	12 GB	24 GB
Disk size	2 × 500 GB	2 × 2 TB	4 × 2 TB
Monthly bandwidth	2 TB	5 TB	25 TB
Dedicated IP addresses	10	25	100
Set-up fee	\$200	\$200	\$200
Monthly fee	\$200	\$300	\$500

Reading 3 Work in pairs. Your manager has asked you these questions. Answer them with information from the web page in 2.

- 1 What can we do if HostElite's standard plans aren't suitable?
- 2 What guarantees and support do they provide?
- 3 Can we use our current server OS licence?
- 4 If we set up another website, can we also host that on the same server?
- 5 Can we try them out for a month or two, to see how good they are?
- 6 How much data can we transfer every month?

Language

Comparatives and superlatives

We use comparatives to compare two things. We use <i>-er than</i> , <i>more ... than</i> or <i>less ... than</i> with adjectives. We use <i>more</i> , <i>less</i> or <i>fewer</i> with nouns.	Servers are more expensive than tablets. Laptops are less expensive than servers. We have fewer servers than desktops.
We use <i>the same</i> (<i>as</i>) or <i>as + adjective + as</i> to show that two things are the same.	The set-up fee is the same for both plans. It's as fast as the other server.
We use superlatives to compare more than two things. We use <i>the ...-est</i> , <i>the most ...</i> or <i>the least ...</i> with adjectives. We use <i>the most</i> or <i>the least</i> with nouns.	This server is the fastest of the three but the least reliable . Which server has the most memory ?

- 4 Look at the table in 2 and complete this product comparison about HostElite's services with the correct form of the words in brackets.

The Premier server's processor is (1) _____ (powerful) of the three. This server has (2) _____ (drives) the Standard server (four instead of two). All have (3) _____ (uptime) guaranteed and they are equally secure. The Basic plan provides (4) _____ (bandwidth) the other two plans, with the Premier plan offering (5) _____ (bandwidth).

All three plans have (6) _____ (set-up fees) but the monthly fee for the Standard plan is (7) _____ (high) the fee for the Basic plan. Overall, the Premier plan has (8) _____ (high) specifications but is (9) _____ (expensive).

- Pronunciation 5  23 Listen to these sentences and mark the stressed words. Then practise saying the sentences.

- 1 Dedicated hosting is more secure than shared hosting.
- 2 The Basic plan gives you more bandwidth than the Superior plan.
- 3 Websites run faster on dedicated servers than on shared servers.
- 4 Of the three, the Basic plan has the least powerful processor.

- Speaking 6 Work in pairs. Ask and answer questions about these features of HostElite's services. Use language from the Language box.

bandwidth control panel minimum contract length monthly fee

Which plan has the largest disk capacity?

- Listening 7  24 Listen to two IT officers talking about the products in the web page in 2 and choose the correct answer, a, b or c.

- 1 For this company, \$200 per month is _____.
a) cheap b) reasonable c) expensive
- 2 The company is _____.
a) very small b) medium-sized c) large
- 3 The current website size is _____.
a) 1 GB b) 1 TB c) 2 TB
- 4 The current monthly bandwidth usage is about _____.
a) 1 GB b) 1 TB c) 2 TB
- 5 The company ____ processing power.
a) doesn't need much b) needs quite a lot of
c) needs a very large amount of
- 6 The company sells to _____.
a) other companies b) consumers

IT costs

Speaking

- 1 Work in small groups. Discuss these questions.
- 1 What electronic devices do you own? What electronic devices would you like to have?
 - 2 Are they cheap or expensive?
 - 3 What accessories and services can you buy for them?

Vocabulary



- 2 Complete these collocations relating to IT hardware and services with the words in the box.

battery	card	extended	internet	memory	purchase
software	spare	technical	training	USB	
1	_____ service	5	_____ battery	9	_____ card
2	_____ reader	6	_____ charger	10	_____ licence
3	_____ cables	7	_____ cost	11	_____ warranty
4	_____ course	8	_____ support		

Speaking

- 3 Work in small groups. Discuss these questions.
- 1 For each device you mentioned in 1, which items in 2 go with it?
 - 2 For the accessories and services in 2 that you haven't mentioned yet, think of a device you could use them with.

Listening



- 4 25 Listen to a manager talking about costs. What kind of gadget is she talking about?

- 5 Listen again and complete these sentences. What is the total cost over one year?

- 1 It _____ €1,200 to buy.
- 2 We _____ €45 _____ some memory cards.
- 3 That _____ €35 _____ a case.
- 4 We also _____ €4.50 a month.
- 5 We'll pay €1,388 _____ total.

Language

Talking about money

When we **talk about money**, we use *cost*, *come to* and *be* when the subject of the verb is an item. We use *spend* and *pay* when the subject is a person, a company, etc.

We can also use *cost* as a noun.

Informally, we often say numbers from 1,000 to 1,999 using hundreds, not thousands.

Decimal prices are expressed differently from other decimal numbers.

How much did it come to/cost in total?

How much was it in total?

How much did you spend/pay?

What is the total cost?

1,250: *twelve hundred and fifty/one thousand two hundred and fifty*

£1.50: *one pound fifty/one fifty*

- 6 Work in pairs. Ask and answer questions using these prompts.

- 1 how much/you/spend/internet connection?
- 2 what/be/your total spending/software/last year?
- 3 how much/you/pay/mobile phone service?
- 4 what/be/the purchase cost of your computer/in total?

Speaking

- 7** Work in pairs. Student A, look at the information on this page. Student B, look at the information on page 70. Follow the instructions.

TCO (total cost of ownership) is the total of all the costs of owning something.

Student A

Your IT manager has asked you and Student B to calculate the total cost of ownership (TCO) of two items over three years. You have the costs for the Sundai TB10.6 tablet and Student B has the costs for the Samiba DR750 laptop. Ask Student B about his/her information and complete the first part of the TCO calculation worksheet below. Then answer Student B's questions so that he/she can complete the second part of the worksheet.

Quotation

Thank you very much for inviting us to quote on this matter. Here is an itemised list of the prices you asked for:

- cost of Sundai TB10.6 tablet: \$499.90
- note-taking apps: \$45 per year
- other apps: total: \$160
- standard warranty: (free) 2 years
- extended warranty (1 year): \$39.90
- online training: \$179 per person
- tech support: free
- protective case: \$35.75

Total cost of ownership calculation worksheet

No. of years: 3

Item	Samiba DR750	Sundai TB10.6
Initial purchase cost		
Software costs		
Warranty		
Technical support costs		
Training		
Other items		
Total cost of ownership		

- 8** Work in pairs. Discuss the differences between the two products in 7.

The laptops cost more than the tablets to buy.

Writing

- 9** Read the email giving the TCO of some mobile devices and answer these questions.

- 1 Which sentence introduces the topic of the email?
- 2 Which word joins similar ideas? Which word joins different ideas?
- 3 Which word indicates a summary?

Hi Katya,

I've analysed the prices of the mobile devices that you requested. Here are the results:

- The Shimatel device is more expensive to purchase than the Kyoseki device.
- Also, software for the Kyoseki device costs less than for the Shimatel device.
- Cases cost about the same.
- However, Kyoseki devices have higher maintenance costs.

Overall, my estimate for the TCO for the Kyoseki is \$1,580 over two years. The Shimatel is a bit more expensive, at \$1,740.

Kind regards, Li Min

- 10** Write an email to your manager giving the TCO over three years of the products in 7. Include appropriate words to join similar ideas, to join different ideas and to indicate a summary.

Product research

Speaking

- 1 Work in small groups. Last time you bought something, how did you choose what to buy? For example, did you think only about price? Or other things as well? Discuss.

Reading

- 2 Read the web page and match the pricing models to these features. Which pricing model(s):

- 1 may have advertising inside the program? _____
- 2 includes a regular fee, e.g. monthly? _____
- 3 has large updates that have a price and small updates that are free? _____
- 4 has several different prices for new users? _____
- 5 makes it easier for the vendor to introduce upgrades often? _____
- 6 sometimes costs nothing? _____

cloud computing =
software as a
service (SaaS)

Common pricing models: a quick explanation

Traditional pricing

This is the pricing model most common in consumer software. If you buy software in a box from a shop, you're probably using this model. Each major version of the software costs money; minor versions are free for licence holders. When a new major version comes out, licence holders have to pay extra but usually less than for a first purchase. Users can often try out the software for free for a short trial period.

Tiered pricing

In this model there are at least two levels (or tiers) of the software product. Each level has a different price and may have a different feature set, or allow a different number of users.

Freemium pricing

This model is just like tiered pricing but the lowest level is free. Often there are a very large number of free users, who act as advertising for the company. If a free user likes the program, they might encourage their employer to use it, who will then pay for premium features.

Subscription pricing

In this the buyer pays a regular fee, usually monthly, to use the software. This includes all updates, which are pushed out to the users. The advantage is that the software company can easily bring out updates frequently. This pricing model is often associated with cloud computing.

Freeware

As its name suggests, this is free software. It might be ad-supported. The disadvantage is that ads may take up space on the screen.

Listening

- 3  26 Listen to three salespeople describing products. Which pricing model from 2 is described in each?

- 1 _____ pricing
- 2 _____ pricing
- 3 _____ pricing, _____ pricing

- 4 Listen again and complete these questions.

- 1 Could you tell me _____?
- 2 Could you tell me _____ trial version?
- 3 Can you tell me _____?
- 4 Can you tell me _____ of your staff will use it?

Language

Asking polite questions

We often use **indirect questions** to be polite. The word order is the same as in statements, not questions.

Do you know what the specifications are?

For yes/no questions we use **if** or **whether**.

Can you tell me **whether** it has support for networking?

Pronunciation 5  27 Listen to three indirect questions and mark the intonation as rising (↗) or falling (↘) in audio script 27 on page 76. Then practise asking the questions.

Reading 6 Read the specification sheets and answer these questions.

- 1 Which pricing model(s) in 2 do Microforce and Jozo use?
- 2 How can you access support in each?
- 3 In how many locations can someone use a) Microforce's Free plan?
b) Jozo Premier with one licence?

Microforce Hypernamic database pricing plans

	Free plan	Standard plan	Enterprise plan
Maximum no. of users	3	10	unlimited
Cost	free (ad supported)	\$10.00/month	\$25.00/month
Trial period	n/a	15 days	15 days
Site licences	1 site	3 sites	unlimited
Support	web only	email	telephone and email
Max no. of records	5,000	20,000	10,000,000
Training	website	access to videos	1 × trainer site visit/year

Jozo Premier database solutions pricing

Maximum no. of users	unlimited (<100 recommended)
Cost	version 5.2: \$699.00 per site; upgrade from version 3 or 4: \$199.00 per site
Trial period	60 days
Support	web, telephone and email
Max no. of records	100,000,000
Training	Contact our sales rep for current prices.

Speaking 7 Work in pairs. Which of the four packages in 6 has the best features for these people? Give reasons for your answers.

- a freelance person • a small company • a large government department

8 Work in pairs. Look at the information in 6 again. Student A, you are a customer. Find out about database software from Student B, a software provider. Student B, answer Student A's questions.

Reading 9 Read this email from an IT consultant to the freelance person in 7. Find and correct the mistake.



Hi Maryam,

You asked which database is suitable. I suggest Microforce Hypernamic. They have a free plan which allows up to two users at one site. The best thing is that it's free. It only allows up to 5,000 records but I don't think you'll need more than that. Also, support is via the website only.

Best wishes,
Hülya

Writing 10 Write an email to the manager of the government department or the small company in 7, advising him/her which package from 6 is suitable for that department. Give reasons.

Making recommendations

- Speaking**
- 1 Work in groups. Think of a device or a software package that you have used. Would you recommend it to someone else? Why/Why not?
 - 2 Work in groups. Read this glossary entry for *CAD*. Discuss which of the features in the box might be useful for CAD software.

CAD (Computer Aided Design): using computers to produce drawings and technical specifications during the design process, for engineers, architects and similar. It may also be used for movies.

2-D drawing tools	3-D drawing tools	audio recording
browser capability	good compatibility with file formats from other software	
instant chat function	network capabilities	OCR

- Listening**
- 3 Listen to three people talking about their companies. How big is each company?
 - 4 Listen again and take notes on each company's CAD requirements. Then, in pairs, use your notes to decide which CAD software below is best for each company.

Side-by-side product summary: best CAD software of the year

	SuperCAD	CAD 8-8-8	CADmium Pro
Price	free (open source)	\$899.95/licence (one computer)	\$45/user/month
Features	★★★★	★★★★★	★★★★
File compatibility	★★★★★	★★★★★	★★★
2-D tools	✓	✓	✓
3-D tools	limited	✓	✓
Network capabilities	✗	✓	✓
User guide	✗	✓	✓
Email support	✗	✗	✓
Telephone support	✗	\$1/minute	free with subscription
User forums	✓	✓	✗

Language

Recommendations

<i>I think (that)</i> <i>In my opinion,</i>	<i>we should + bare infinitive</i> <i>it's a good idea + to-infinitive</i> <i>it's best + to-infinitive</i>	<i>I think it's best to use open source software.</i> <i>In my opinion, we should use open source software.</i>
<i>I recommend</i> <i>I'd recommend</i>	<i>+ gerund</i> <i>that we + clause</i> <i>+ noun (phrase)</i>	<i>I recommend using open source software.</i> <i>I recommend that we use open source software.</i> <i>I'd recommend open source software.</i>

- Speaking**
- 5 Work in pairs. Take turns to make recommendations to the people in 3. Use the notes you made in 4 to help you.

- Writing**
- 6 Write an email to one of the people in 3, giving your recommendations and reasons.

Business matters

Speaking

- 1 Work in groups. Think about presentations that you've seen or given. Decide on three pieces of advice about giving presentations. Share your ideas with the class.

Reading

CMS (content management system) = software that makes it easy to edit and manage a website

- 2 Double Jam is a company that needs advice about a new website. Read their company profile and the web pages below. Which options do you think are best for the company?

Double Jam is a medium-sized clothes company that wants a website for marketing purposes. Its clients are mostly young consumers who want lots of exciting content such as video and often use mobile devices to access the internet. They want people to do interesting things on their website, not just read it. It's important that their website is fast.

Server options

Option 1: Dedicated server, 2 x 8 core processors, 2 TB HDD, 2 TB bandwidth/month, \$200/month, free set-up

Option 2: Shared server, 1 x 8 core processor, 200 GB HDD, up to 500 GB bandwidth/month, free set-up, \$34.90/month

Web content management system

Option 1: Open source, supports database, blogs, video and audio. Doesn't automatically support mobile devices. No cost for the software and set-up but most people recommend that new users buy the support package for set-up at \$65/hour.

Option 2: Subscription-based (\$10/month), supports databases, automatically supports mobile devices. Supports blogs and multimedia, including video and audio.

Listening

- 3  Listen to an IT consultant giving a presentation to Double Jam and check your answers in 2.
- 4 Listen again and complete this table with the expressions the IT consultant uses to introduce different points in her presentation. Then add any similar expressions you know. Compare answers with a partner.

Part	Expressions in presentation	Your ideas
Introduction	<i>first, I'll give ...</i>	
Body		
Conclusion		

Speaking



- 5 Work in pairs. Your company has asked you to give advice for a client, Top Safety Consulting. Read their company profile and decide which of the server options and web CMS systems in 2 to recommend. Estimate the cost of each in the first year.

Top Safety Consulting is a medium-sized company that advises companies about site safety. The company's clients access information on many kinds of devices from desktop computers to mobile phones, but content is mostly ordinary web pages with writing and a few pictures; they want to keep costs low. They want their website to look good but it doesn't have to be exciting for younger people: this is a serious website.

- 6 Prepare a short presentation in which you give your recommendations and reasons. Use the expressions in 4. Then give your presentation. While listening to other presentations, note down the recommendations each speaker makes.

6

Interactions

- describe trends
- describe benefits of video conferencing
- give meanings of e-commerce concepts
- process requests for training

Enterprise social media

Speaking 1 Work in pairs. How do you communicate electronically with friends and family? Which types of communication do you think are better for a) communicating information and b) being friendly?

Vocabulary 2 Match websites 1–3 to types a–e. There are two extra types. Can you give other examples of each type?

- 1 Dropbox
- 2 Facebook
- 3 Twitter

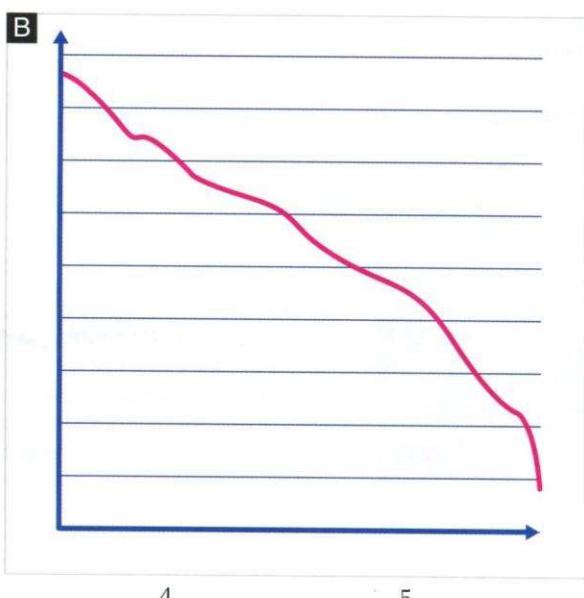
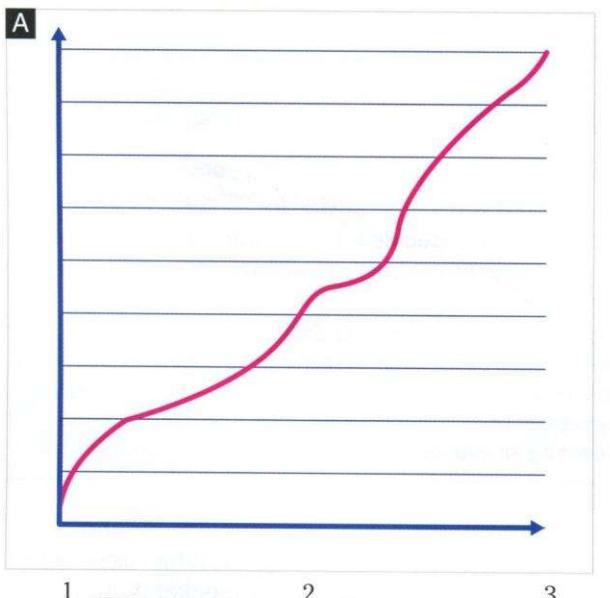
- a) microblogging system
- b) internet forum
- c) file sharing service
- d) social networking
- e) blog

Speaking 3 Work in pairs. Look at the websites in 2 and discuss these questions.

- 1 What are some of the differences between the systems?
- 2 How are they used differently in a work environment from a social environment?
- 3 In a company, what security and privacy issues might each lead to?

Listening 4  30 Listen to five people describing trends and match them to graphs A and B.

LinkedIn **orkut**



Language

Describing current changes

We often use the present continuous to describe changes happening now. We can use <i>more and more</i> + noun or comparative + <i>and</i> + comparative.	We're having more and more visitors in the forum. Smartphone applications are getting cheaper and cheaper.
We often use <i>get</i> and <i>become</i> with comparative adjectives.	Our website is becoming/getting more popular.
We can also use verbs such as <i>increase</i> , <i>decrease</i> , <i>go up</i> and <i>go down</i> .	The number of bloggers is increasing.

- 5 Look at audio script 30 on page 77. Underline the parts of the sentences showing change.
- 6 Complete these short conversations about trends. Use the present continuous and comparative adjectives.

- 1 A: _____ (hard drives/get/cheap)
B: I think we should wait a bit before buying more of them.
- 2 A: _____ (our website/get/slow)
B: Maybe we need a faster server.
- 3 A: _____ (our forum/become/popular)
B: Great! That's just what we want!

Listening 7  31 Listen to a general manager talking to an IT officer about replacing the company's social networking system. Will it be easy or difficult to get the features the manager wants?

- 8 Listen again. Tick ✓ the correct column to show which features the company has now and which the manager wants in the new system.

	Current system	New system
1 instant messaging		
2 forums		
3 document management system		
4 comments feature		
5 mobile phone access		
6 basic security features		
7 encryption		
8 speech-to-text capability		

instant messaging
= chat

- 9 Listen again. What trends are mentioned? Mark these items ↗ or ↘ to show an upward or downward trend.

- | | | | |
|----------------------------|---|-----------------------------------|---|
| 1 using the current system | — | 4 needing data access at home | — |
| 2 spending time on emails | — | 5 importance of security | — |
| 3 working with overseas | — | 6 popularity of voice recognition | — |
| departments | — | | |

Language 10 Work in pairs. Write a sentence to show the trend for each item in 9 using language from the Language box. Then compare your answers with audio script 31 on page 77.

Speaking 11 Work in groups. Think of as many answers to these questions as you can. Use language from the Language box. Which group can give the most answers?

- 1 What are some current trends in IT?
- 2 In what ways can enterprise social networking systems help a company?

Video conferencing

Speaking

- 1 Work in pairs. Discuss these questions.
 - 1 Which method of communicating do you prefer: face-to-face, by video or by telephone?
 - 2 Look at the photo. Have you ever used a video conferencing set-up? If so, describe the situation.
 - 3 What do you think are the advantages of video conferencing over face-to-face meetings?



- 2 Which of these items can you see in the photo? Mark the items on the photo.

cables control panels high-definition monitors local participants
microphones remote participants speakers video cameras

Listening

- 3 32 Listen to two technicians talking about video conferencing technology. Which two types of system does the woman talk about?
- 4 Complete these glossary definitions with the words in the box.

(data) compression dedicated system MCU remote control

Glossary of video conferencing terms

- 1 _____: a system that is used for only one purpose, e.g. for video conferencing only, nothing else
- 2 _____: a device that can control the video conferencing system from a distance, without wires. It can be passed from person to person easily.
- 3 _____: a device that allows video conferencing systems to use more than two locations
- 4 _____: a way to fit audio or video into a smaller space and use less bandwidth

Language

Second conditional

We use the **second conditional** to talk about something that is not true now or is unlikely to happen in the future.

*If we were a big company, we would buy an expensive video conferencing system.
If we got a video conferencing system, our travel costs could go down a lot.*

- 5 Look at audio script 32 on page 77 and underline all the examples of the second conditional. Which tense do we use in the *if* clause? In the main clause?

- Listening** 6  33 Listen to five people talking about video conferencing. Do they think the situation is likely or unlikely? Tick ✓ the correct column for each speaker.

	Likely	Unlikely
Speaker 1		
Speaker 2		
Speaker 3		
Speaker 4		
Speaker 5		

- Speaking** 7 Work in pairs. Look at audio script 32 on page 77 and complete this table. Then discuss the advantages and disadvantages of having each system.



	Dedicated video conferencing system	Videophone
How many locations of participants?		only two
How many participants in each location?		only one
Cost?		less expensive
Room		any room is OK
Equipment needed		only the videophone

If we had a videophone, we could save a lot of money. But we wouldn't be able to have meetings with lots of people.

- 8 Work in pairs. What would happen if you wanted a video conferencing system but didn't have these items? Complete this table. Then take turns to say complete sentences.

Item	Problem without this item
1 encryption	<i>wouldn't be secure</i>
2 warranty	
3 a high-speed internet connection	
4 an MCU	
5 training	
6 a dedicated room for the equipment	
7 data compression	

If we didn't have encryption, our video conferences wouldn't be secure.

- 9 Work in pairs. Student A, you are a general manager. You want a video conferencing system but want to save money. Student B, try to persuade Student A, your manager, to have one of the features in 8. Then swap roles and repeat the activity.

- 10 If these people could use video conferencing facilities, how would their lives be different? Discuss. Use language from the Language box.

- 1 a deaf person
- 2 a child who lives a long way from any school
- 3 doctors working in a small hospital a long way from a city
- 4 a company director who doesn't have time to visit her clients overseas

E-commerce

- Speaking** 1 Work in pairs or small groups. Do you buy things on the internet? Why/Why not? What are the advantages and disadvantages of internet shopping? Discuss.
- Reading** 2 Read this magazine article about Dalya's job. What are three parts of an e-commerce system? Which does Dalya find most difficult to set up?

shopping basket
(BrE) = shopping cart (AmE)



Internet shopping: the inside story

Dalya Rahman specialises in setting up e-commerce systems. Here, she tells 'New Careers' magazine about her job.

I work with B2B (business-to-business) e-commerce systems as well as B2C (business-to-consumer) systems and integrate all the components: the user interface, the shopping basket and the payment system. The user interface is the part that shoppers see on their screens. For this, I work closely with designers to make it look good; it's important that customers enjoy using it.

When customers see an item that they want to buy, they put it in their shopping basket. To set this up, I usually integrate standard software packages with the company's website. This software uses small files that the browser puts on the user's computer, called cookies, to track the items in the basket. This stage isn't too difficult – mostly I just match up the code with the client's website.

The next step is the payment processing system. This takes the customer's information – delivery address, credit card number, etc. It processes the payment and outputs the details so that the company can send out the order. This component is more complicated: I have to integrate it into several different systems, including the company's accounting system. Fortunately, there's a special data format, EDI, that is Electronic Data Interchange, which makes this easier. EDI is standard in e-commerce systems so that other kinds of software, such as accounting systems, can accept data from it.

My job is fun because every project is different and I use my technical skills as well; a great combination!

- 3 Find words in the article in 2 that match these definitions.
- 1 put together two or more things so that they work well together (paragraph 2)

 - 2 smaller parts of something bigger (paragraph 2) _____
 - 3 computer programming instructions (paragraph 3) _____
 - 4 taking a series of steps to do something (paragraph 4) _____
 - 5 the place to send goods (paragraph 4) _____
 - 6 the items that a customer wants to buy (paragraph 4) _____
 - 7 looking after money in an organisation (paragraph 4) _____
- 4 Read the article in 2 again and answer these questions.
- 1 For which component is appearance important?
 - 2 Which component involves integration with something else?
 - 3 What do e-commerce websites use cookies for?
 - 4 For which component is programming mentioned?
 - 5 Which item involves integration with more than one other component?
 - 6 Where does the company get delivery information from?
 - 7 Why is EDI useful?
- 5 There are three acronyms in the article in 2. Underline them and their meanings.

Language

Giving meanings of technical words

To explain technical words, we can:

- give the meaning in brackets.
- use *called* + the word(s) between commas.
- use *be*.
- use a separate sentence.
- use a relative clause.

... **EDI** (**Electronic Data Interchange**) format ...

We use small data files, **called cookies**, to ...

We use **EDI**. **EDI** is a way of sharing data between components of a ...

We use **EDI**, **which** is a way of sharing data between components of a ...

Speaking

- 6** Work in pairs. Student A, look at the information on this page. Student B, look at the information on page 71. Follow the instructions.

Student A

- 1 Student B will read the definitions of some words to you. Give him/her the correct acronym or phrase from the box for each definition.

bricks and clicks DRM NFC

- 2 Read these definitions to Student B. He/She will give you the correct acronym or phrase for each definition. Write it in the gap.
- a data security system which is used over the internet and other open networks _____
 - buying and selling between business and government _____
 - a real shop, not an online one _____

Listening

- 7**  **34** Listen to a telephone conversation between a customer and a salesperson talking about a new product. What is the product? What problem does it solve?



- 8** Listen again and answer these questions.

- How do online customers use the product?
- How do customers use it in real (bricks and mortar) shops?
- What is a further benefit for the company?

Speaking

- 9** Work in pairs. What is an e-wallet? Write a definition. Then compare answers with your partner. Discuss any differences and create a new definition combining your ideas. Share your ideas with the class.

- 10** Work in pairs. Would you be happy to use an e-wallet? Why/Why not? How secure do you think it is? Discuss.

- 11** Work in pairs. Write definitions for three words from the text in 2 but do not show your partner. Then read your definitions to your partner. Can he/she guess the words?

Training users

Speaking 1 Work in pairs. Discuss these questions.

- 1 When a company buys new technology, how important is it to train users?
- 2 What do you think are the advantages of e-learning over face-to-face learning?

Vocabulary 2 Match words 1–8 to definitions a–h.

sync = synchronise/
synchronisation

- | | | | |
|-----------------|---|---------------------------|---|
| 1 smartphone | — | 5 policies and procedures | — |
| 2 threaded view | — | 6 syncing | — |
| 3 tagging | — | 7 instant messaging | — |
| 4 announcement | — | 8 archiving | — |

- a) documents showing standard ways of doing things in an organisation
- b) adding keywords to a file (e.g. a document or photograph) to make it easier to find
- c) a type of mobile phone that can also use data
- d) a way of viewing emails and comments so that all messages in the same conversation are grouped together
- e) saving an old file in a special place because you don't use it very often but might want to use it later
- f) making the data from two places match, e.g. making two calendars match
- g) an important message for many people, giving new information
- h) a system for having conversations using short written messages on the internet

Listening 3  35 Listen to six employees asking for training on an enterprise social networking (ESN) system. Tick the areas/features the employers need training in.

Training needs analysis: Enterprise social networking system

Specific areas/features	Training needed	Specific areas/features	Training needed
<ul style="list-style-type: none">• instant messaging• increasing efficiency• document collaboration• policy and procedure access• company announcements	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<ul style="list-style-type: none">• finding messages• smartphone syncing• threaded view• archiving of old messages• tagging of messages, files and documents	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Language

Making requests

For requests, we can use polite questions such as indirect questions (e.g. *It would be great to know ...*, *I'd like/love to know ...*, *Could someone tell me ...*) or the modal verbs *can* and *could*.

It would be great to know how syncing works.
Could someone tell me how to use the ESN system?
Could we learn about tagging?

4 Write a polite request for training in each of these areas.

- 1 instant messaging
- 2 document collaboration
- 3 document archiving
- 4 finding information

Speaking 5 Work in pairs. Choose one of the words in the box and roleplay a conversation requesting a training session. Then swap roles and repeat with another word.

CAD software databases networks spreadsheets

Business matters

Reading

- 1 Look at the headings in this report. What are the main points of the report?

Current issues for BDL Limited and possible IT solutions

Introduction

Our last year has been good. The new overseas office is doing well and our B2B and B2C sales are increasing quickly. Our sales team is working hard and our four bricks and mortar shops are also doing well. However, there are some issues that we need to deal with so that we can continue to do well in the future. Some new technology might help with these.

Problems: communication and internet sales

We have found two problems that the IT Department could help us with. These are:

- Communication between our different country offices and departments in different locations isn't very efficient, especially for our international locations. We are collaborating more and more between different locations, so it's important to make this easy for people.
- Internet sales are going down. There are several reasons for this. The main one is that customers don't like using the current online shopping system. We need a system that's easier to use so that customers don't give up before they finish their transactions.

Recommendations for IT solutions

The first step should be to find out whether technology can help with these problems and, if so, how it can help. If this is successful, next we should find out about prices and features of appropriate systems.

- 2 Read the report in 1 and answer these questions.

- 1 Does the company have locations in one country or more than one?
- 2 What problem do they have with communication?
- 3 What problem do they have with e-commerce?
- 4 What two steps does the company want to take next?

Speaking

- 3 Work in pairs. Think about the technology that you talked about in this unit. Which items could help the company in 1? If the company had the item(s) now, how would things be different?

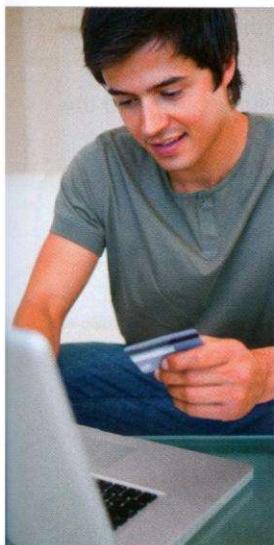
Writing

- 4 Look at the report in 1 and answer these questions.

- 1 Which features of the report clearly show the main points?
- 2 Which section of the report:
 - a) gives the background information?
 - b) gives details?
 - c) talks about future actions?
- 3 In each section, where is the main idea: at the beginning, in the middle or at the end of the section?

- 5 Write a short report explaining your decisions in 3. Use these headings:

- Introduction
- Suggestions and benefits
- Recommendations for next steps



- describe software requirements
- talk about website architecture
- describe programming steps
- discuss future plans and schedules

Requirements analysis

1 Work in pairs. Put these stages of the software development process in the best order.

- The customer checks and approves the final version.
- Speak with the people who will use the new software and analyse how they will use it.
- Plan the project, write the specifications and prepare instructions for the programmers.
- Test and debug the code.
- Write the code.

Reading **2** Read this interview from *Computer World*, an online magazine, in which Jess Wong, a systems analyst, talks about her job. Which of the stages in 1 does she mention?

The screenshot shows a window titled 'COMPUTER WORLD' with a red background. The interview transcript is as follows:

CW: So, Jess, could you tell us about the requirements analysis process?
JW: Well, first, we talk to the client to find out who the users will be. Then we interview as many users as we can. This can be difficult because we have to look at every step in the process very carefully, in a lot of detail.
CW: And what's the next step?
JW: Next, we put together the specification document. This shows everything that the program does. And by that I really mean everything! We have to write down what every button does, what you see on every pop-up menu and so on.
CW: Is this where you draw flow charts?
JW: Yes, and the user interface.
CW: And does the client check the specification document?
JW: Certainly. We want the client to look at every part of it, to be sure that they are happy with it. We usually have to make a few changes at this stage but this is usually quite quick. Then we can hand over to the developers so that they can do their part of the job.

3 Read the interview in 2 again and answer these questions.

- 1 Why does Jess talk to the client at the beginning of the process?
- 2 Why are the interviews sometimes difficult?
- 3 What does the specification document contain, besides writing?
- 4 Why does the analyst want the client to check the specification document?

Vocabulary **4** Complete these definitions with the words in the box. Use the stages in 1 and the interview in 2 to help you.

approve analyse debug detail interview

- 1 all the separate features and pieces of information about something _____
- 2 think about something very carefully, step-by-step _____
- 3 officially say that you are happy with something _____
- 4 ask someone questions formally in order to find out information _____
- 5 find problems in a computer program and correct them _____

Listening 5 ➤ 36 Listen to a systems analyst talking to a worker. He is preparing specifications for a pizza shop website to take orders online. Which stage from 1 is he at?

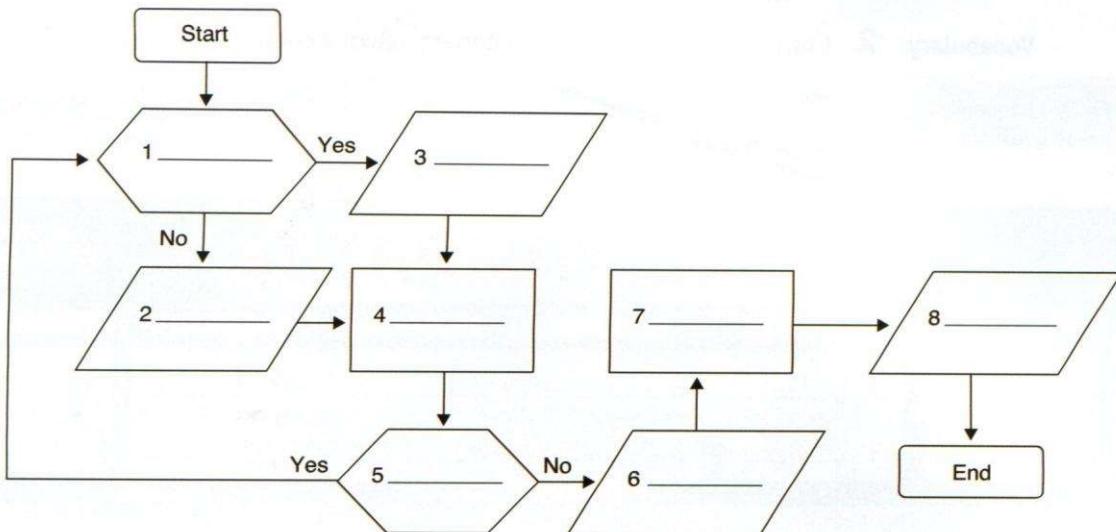
6 Complete 1–4 in this flow chart with the steps in the box. Then listen again and check your answers.

Ask which type of standard pizza.

Customer wants standard pizza?

Ask which toppings.

Write order on order sheet.



7 ➤ 37 Now complete 5–8 in the flow chart in 6 with the steps in the box. Then listen to the second part of the conversation between the systems analyst and the worker and check your answers.

Ask for delivery address. Calculate delivery time.

Customer wants another pizza? Tell customer delivery time.

Language

Expressing user requirements

We use *should*, *have to* and *need to* to express requirements.

The program should be easy to use.
It needs to be fast but it doesn't have to look good.

We can also use *want* + object + infinitive.

The client wants the program to run on old versions of Windows.

Speaking 8 Work in pairs. Use the flow chart in 6 to say what the program should do.

First, the program should find out what kind of pizza the customer wants: standard or choice of toppings.

9 Work in small groups. A shop selling fashionable clothing for young people wants an online order system. Think about the software and make a list of requirements.

The website should look interesting for young people. It should show ...

10 Compare your list from 9 with another group's list.

Website design and architecture

Speaking

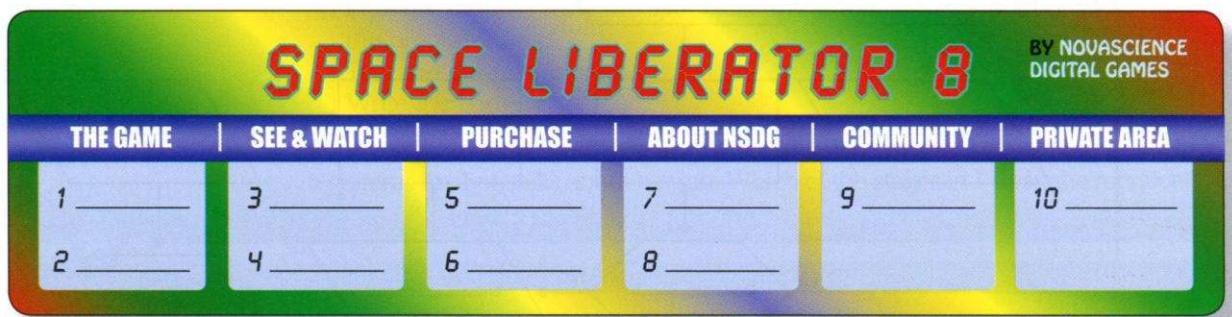
- 1 Work in pairs. Think of a typical website and discuss these questions.
- 1 Which pages do most websites have (e.g. contact details)?
 - 2 Which of these items, or other items, is often at the top of each page? Which is below that? What else might you find at the top of a web page?
 - contact details
 - menus
 - search
 - title
 - 3 What makes a website easy or difficult to use? What makes it interesting? Think about how easy it is to find things, what the website looks like and what is on it (e.g. photos).

Vocabulary

- 2 Complete the menus on this home page of a computer game website.

FAQs = frequently asked questions

Company blog Contact us FAQs How to pay How to play
Images Login Players' forum Prices Videos



Reading

- 3 Read this case study about a website development project. What do you think a fan site is? Was the project successful? How do you know?

SEO = search engine optimisation

A web developer's work

Andrea Pinheiro da Silva is a web developer who is well known for the websites she has developed. Her websites have won several awards. Here, she describes a recent project.

'Recently, I worked on a project for SLFan, a fan club for the *Space Liberator* game. There were a few other sites for fans of the same game, so it was important that it looked exciting and dynamic, to get more site visits. The customer also wanted their new site to have two different areas: a public one for general content and a private one with premium content for paying fans.'

We decided to use a combination of PHP, HTML5 and MySQL. PHP was chosen to keep costs down (it's open source) and for its flexibility. It's also very versatile: it integrates easily with many other website tools. We mainly used HTML5 for multimedia content but also used other systems so that the site can be viewed on many types of devices, including mobile devices. And MySQL was just right for the private area: forum posts and other private data can be stored in the MySQL database.

Speaking of mobile devices, one of the challenges was to make the site viewable on mobile phones and smaller tablets. We had to make sure that every page can be seen in mobile format. We also had to work on SEO because high search rankings were required. That involved working closely with SLFan.'

The end result was a website that the customers were very pleased with. They were great people and real fun to work with!'

Vocabulary 4 Find words in the case study in 3 that match these definitions.

- 1 accessible by anyone (paragraph 2) _____
- 2 information, images, video, etc. on a website or in an application (paragraph 2) _____
- 3 better or more expensive than others (paragraph 2) _____
- 4 two or more things that are used together (paragraph 3) _____
- 5 that can be used in many different ways (paragraph 3) _____
- 6 things that are difficult to do (paragraph 4) _____
- 7 possible to see (paragraph 4) _____
- 8 position on a page of search results (paragraph 4) _____

Language

The passive

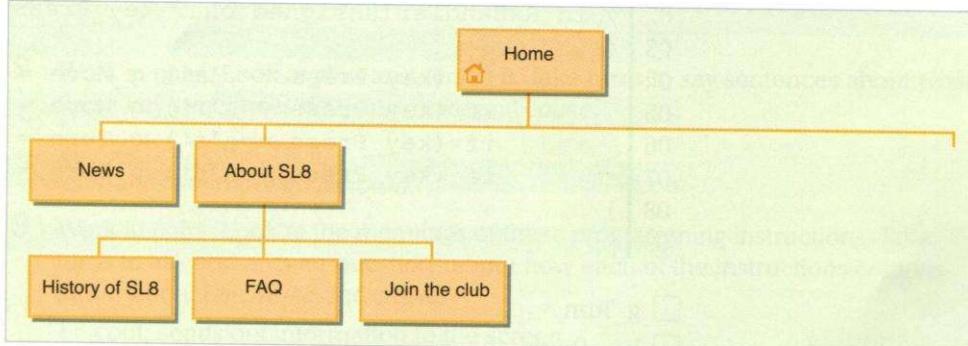
We use **the passive** when the action is more important than the agent (the person or thing doing the action), or when it isn't necessary to mention the agent at all.

*His website is linked to my website.
The new website was viewed many times.
Videos can be viewed on this site.*

5 Rewrite these sentences in the passive.

- 1 They found a problem.
- 2 The customer requires a dynamic, exciting website.
- 3 We used PHP for this website.
- 4 People can watch videos on this website.
- 5 People can download useful PDFs from this website.

Speaking 6 Look at this website navigation chart. Which pages are linked to the home page? Which page is the parent node? Which pages are the child nodes? Which are the grandchild nodes?



7 Work in pairs. Student A, look at the information on page 68. Student B, look at the information on page 71. Follow the instructions.

Writing 8 Read the text in 3 again. What was done to create the website? Complete this email to your manager. Use the passive.

The image shows a simulated email inbox interface. The toolbar includes standard icons for Delete, Junk, Reply, Reply All, Forward, Print, and To Do. The subject line reads 'Inbox'. The body of the email contains the following text:

Hi Natasha,

Just to summarise, this is what we did to create the website:

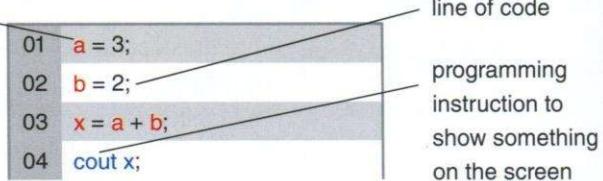
- The code was written in PHP, JavaScript ...

Software development

Speaking

- 1 Work in small groups. Have you ever seen any programming code? Would you like to be good at programming?
- 2 Work in pairs. Look at the section of code and the explanations and answer these questions.
 - 1 Find an example of a constant in the code.
 - 2 What do you think the value of *x* is, after the third instruction?

'*a*' is a variable. A variable is something that can change its value (which can be a number). The opposite is a constant: a constant can't change its value. For example, here the number '3' is a constant but '*a*' is a variable: '3' is always '3' but '*a*' can have any value an instruction gives it: it can be 1, 2, 3 or any other number. This instruction gives it the value '3', which it keeps until another instruction changes it. Variables can have any name, and sometimes variable names are quite long. For example, '*g_Turn*' is a variable name.



Listening

- 3 Listen to the first part of a conversation between two programmers talking about this code, which controls a robot using a mobile phone. Number the variables in the order they are explained.

```
01 int g_Move = 0, g_Turn = 0;
02 void RxHandler(unsigned char key_Press)
03 {
04     if (key_Press == 'a') g_Move = 1;
05     if (key_Press == 'f') g_Move = 2;
06     if (key_Press == 's') g_Turn = 1;
07     if (key_Press == 'd') g_Turn = 2;
08 }
09
```

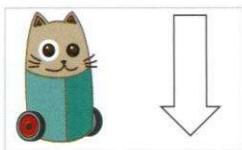
- g_Turn*
- key_Press*
- g_Move*

- 4 Complete these sentences. Then listen again and check your answers.

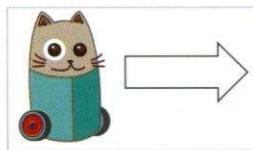
- 1 If *g_Move* has the value 0, the robot _____.
- 2 If *g_Turn* has the value 0, the robot _____.
- 3 If you press 'x' on the phone, *key_Press* has the value _____.

- 5 Listen to the second part of the conversation between the two programmers. Which lines of code are they talking about?

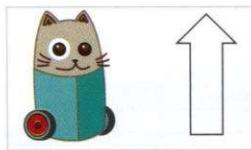
- 6** Listen again and label these illustrations with the keys that correspond to each direction.



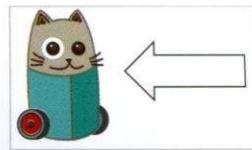
1 _____



2 _____

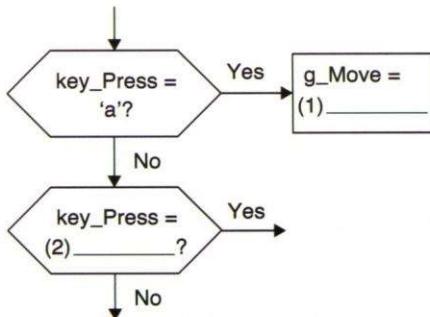


3 _____



4 _____

- Speaking** **7** Work in pairs. Look at the code in 3 again and complete this flow chart. Which instructions in the code in 4 do they represent?



Language

Make and cause

We use *make* + object + bare infinitive and *cause* + object + *to-infinitive* to explain how something controls something else.

The 'f' key **makes the robot go backwards**.
This instruction **causes the computer to print something**.

- 8** Work in pairs. Look at your answers in 6. Take turns to say sentences about what these key sequences do using *make* and *cause*.

a → f → d → s

'a' *makes the robot go forward*.

- Speaking** **9** Work in pairs. Look at the meanings of these programming instructions. Take turns to ask and answer questions about how each of the instructions controls information. Use *make* and *cause*.

- 1 cout: sends out information to the screen
- 2 cin: takes input from the keyboard
- 3 rename: changes a filename
- 4 exit: stops a program
- 5 time: returns the number of seconds since midnight on 1 January 1970
- 6 remove: deletes a file

A: *Which instruction makes the computer show something on the screen?*
B: 'Cout'.

- 10** Work in pairs. Take turns to explain to your partner what these items do. Use *make* and *cause*.

a mouse

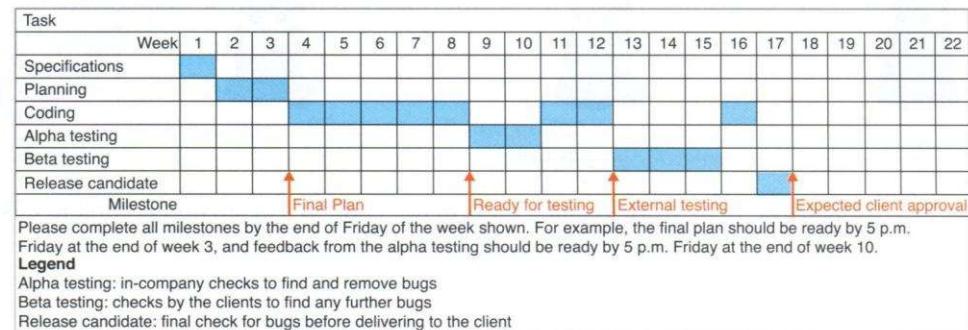
A mouse makes the cursor move on the screen.

- | | |
|---------------------------------|---------------------|
| 1 the 'Maximise' button | 4 the 'Off' switch |
| 2 a right click | 5 the 'Send' button |
| 3 a double click on a file icon | 6 the 'Save' button |

Project management

Speaking

- 1 Look at this Gantt chart. Why might someone use a Gantt chart?



Vocabulary

- 2 Complete these definitions with the words in the box. Use the Gantt chart in 1 to help you.

alpha testing beta testing coding feedback milestone
release candidate

- writing software _____
- an important stage in a project _____
- the first stage of testing software _____
- the second stage of testing software _____
- information about problems or how good something is _____
- the final version of software, if no big bugs are found _____

Listening

- 3 40 Listen to a programmer and project manager discussing the schedule for the project in 1. Are they near the beginning or end of the project?
- 4 Listen again. What was the mistake on the Gantt chart? Correct the chart in 1.

Language

Schedules

We use *plan to*, *be scheduled to* and *be due to* in the present simple to talk about **schedules**. All three phrases are followed by an infinitive.

We're scheduled to finish this project on Friday and we're due to start the next one on Monday. We plan to test the software next week.

We use the present continuous if the event is part of a fixed plan and we can clearly imagine it happening.

Alpha testing is finishing next week.

- 5 Work in pairs. Look at audio script 40 on page 79. Underline all the examples of the language from the Language box.

Pronunciation

- 6 41 Listen to two short conversations and underline the stressed words in audio script 41 on page 79. Then practise the conversations with a partner.

Speaking

- 7 Work in pairs. Look at the Gantt chart in 2 and take turns to ask and answer questions about the schedule. Use language from the Language box.
- A: *What's scheduled for week 11?*
B: *We're due to start coding again during week 11, after the alpha testing.*

- 8 Work in pairs. Take turns to ask and answer questions about your work or study schedule.

Business matters

Speaking

- 1 Work in small groups. Read this scenario and answer the questions.

You work for a computer games company. Your manager has asked you to prepare a rough plan for a new project: a website to advertise a new computer game. It will be similar to other game websites but with a special extra feature: an online version of the game that people can try out before buying the real one. This feature will need a lot of development.



- 1 What is special about the new website compared with others of the same type?
 - 2 What is likely to be the most difficult part of the new website?
- 2 Work in the same groups. Read the scenario in 1 again and discuss these points. Then draw a site map based on your decisions.
- Decide:
- 1 what pages to have.
 - 2 what type of content to include (e.g. video? any premium content? a private area?).
 - 3 how to navigate the site: which pages should be linked to which other pages?
- 3 Work in the same groups. Draw a Gantt chart for the project in 1. Add the stages in the box to your chart.

alpha testing beta testing client approvals coding planning
release candidate requirements analysis

Task	Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Milestone																						

- 4 Work in the same groups. Use your Gantt chart from 3 to explain your project to another group. Then compare your charts. What differences are there? What might be the reason for these differences?
- Writing 5 Write a short report to your manager describing your project. You can use the information on page 51 to help you. Use these headings in your report:
- Introduction (Give background information about the project.)
 - Stages in the project (Describe the stages you planned in 3.)
 - Conclusion (Say when you think the project will finish.)

8

IT solutions

- talk about what you have done to identify a problem
- speculate about the causes of a failure
- propose solutions
- talk about your career in IT

Investigations

Speaking

1 Work in small groups. Discuss these questions.

- 1 What was the last problem you had with an electronic device? What other problems could happen?
- 2 When you have problems with a device, what do you do? How can you find help?

Listening

2  42 Listen to six people describing problems. Complete the sentence about each speaker's problem with the words in the box.

connection error crashes failure
fault hanging running slowly

- 1 The application is _____.
- 2 The computer _____.
- 3 There is a _____.
- 4 The computer is _____.
- 5 The speaker had a disk _____.
- 6 The speaker's mobile phone has a _____.

3 Which problem in 2 means that the computer or program is still running but nothing can be typed into it?

Speaking

4 Choose one of the problems in 2 and describe it to your partner, without saying the word(s). Can your partner guess what it is?

It's when the part of your computer that stores information stops working.

Listening

5  43 Put these sentences in the correct order. Then listen and check your answers.

- Ah. Have you tried restarting your computer?
- Could you do that? And if you still have a problem, just call me again.
- Does it say anything else?
- Hi, help desk here. My name is Suki. How can I help you?
- Er ... no, I haven't.
- OK. Can you tell me exactly what happens?
- OK. Thanks very much. I'll do that.
- Sure. When I press 'Send', I get an error message saying 'This program has found a problem and needs to close'.
- Yes, hi. I've got a problem with my email. Whenever I try to send a message, the program crashes.
- Well, something about sending an error report to the software company. Oh, and an error code: it says 'Error 35A4'.

6 Look at the conversation in 5 again. What is the problem? What is the solution?

Language

Present perfect vs. past simple

We use the **present perfect** when the time period we're thinking about is not finished. We can use *yet* if we expected or wanted the action to happen before speaking but it didn't. We can use *already* if we expected the action later but it happened early.

We use the **past simple** for completed actions in a finished time in the past.

*Have you restarted the computer? No, I haven't.
I haven't finished the programming yet.
I've already replaced the hard drive.*

I emailed the manager last week.

- 7 Look at the conversation in 5 again and underline all the examples of the present perfect and the past simple.

- 8 Complete these conversations with the correct present perfect or past simple form of the verbs in brackets.

1 A: It's a pity your new mobile phone isn't working. _____ (you/charged) the battery?

B: Yes, I _____ (charge) it this morning.

2 A: _____ (you/repair) the computers yesterday?

B: No, _____ .

3 A: I'm sure we'll get your computer working again. First, though, some questions: what _____ (you/try) so far?

B: Well, I _____ (restart) it five minutes ago.

4 A: _____ (you/receive) my email yet?

B: No, I _____ (not receive) anything from you today.

A: Oh. _____ (you/check) your junk mail folder?

- 9 Use these prompts to write questions and short answers in the present perfect or past simple.

you/restart the computer/yet/? (X)

A: *Have you restarted the computer yet? B: No, I haven't.*

1 you/check the manual/yet/? (✓)

2 they/contact support/last week/? (X)

3 you/check the cable/yet/? (✓)

4 you/test the broken computer/yesterday/? (X)

5 you/try inserting another DVD/? (✓)

- 10 Listen to these sentences and underline the stressed syllable in each word. Then practise saying the sentences with a partner.

1 The computer's crashed three times today!

2 I've rebooted the computer.

3 Have you re-installed the software?

4 I haven't had time to finish the repair.

- Speaking 11 Work in pairs. Have you ever had a problem with any of these? What happened?

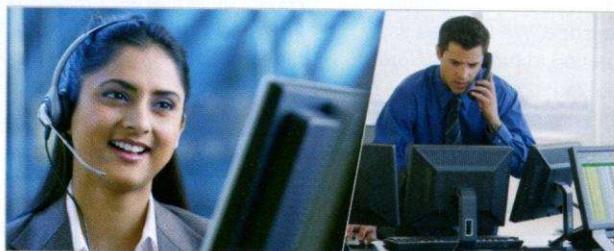
cable or connection computer database email client internet connection
LAN connection monitor password peripheral device

- 12 Work in pairs. Student A, look at the information on page 68. Student B, look at the information on page 71. Follow the instructions.

Diagnosis

Speaking 1 Work in small groups. Discuss these questions.

diagnosis = finding out exactly what the problem is with something



- 1 Look at the photos. What do you think is happening?
- 2 Have you ever called an IT help desk call centre? What happened? How was the experience?

Vocabulary 2 Find words in the form that match these definitions.

- 1 software for looking after help desk enquiries _____
- 2 record of a customer's problem or question _____
- 3 level _____
- 4 pass the problem to a higher level technician with more training _____

Gellicity Solutions: Issue tracking system		
Tier 1 help desk support ticket		
Name (1) _____	Date 24 July	Time 13.40
Software (2) _____	Version (3) _____	
Problem(4) _____		
Error messages (e.g. error type no.) (5) _____		
Actions taken by user (6) _____		
(7) Result	<input type="checkbox"/> Problem solved	<input type="checkbox"/> Escalate to tier 2

Listening 3  45 Listen to a conversation between a telephone help desk technician and a customer and complete the form in 2.

4 Listen again and answer these questions.

- 1 What does the help desk technician think the problem might be?
- 2 What will happen next?
- 3 Which level of support do customers reach first: tier 1 or tier 2?

Language

Modals of speculation and deduction

We use the modal verbs **may**, **might**, and **could** to speculate about possible reasons and causes. In questions we use **can**, **could** or **might**.

*I'm not sure what the problem is. It **might** be a software problem.
Could it be a hardware issue?*

We use **must** when we are sure that something is true and **can't** if we are sure that something isn't true.

*It shouldn't do that: it **must** be a fault.
The server **can't** be busy! No one's using the website!*

We often use **be** + noun/adjective after these verbs. We can also follow them with **be** + **-ing** if it's a continuous action, or with **be** + past participle if it's a state.

*The server **might not** be working or the cable **might not** be connected.*

- 5** Say what you think the problem is in these situations. Use language from the Language box.

I can't connect to the network. I wonder if the server is working?
The server might not be working.

- 1 My computer won't switch on. There have been many reports in the newspaper about viruses recently.
- 2 I can't find the file I need. I'm sure it's not on the server – I've looked everywhere!
- 3 Mehmet, the support technician, isn't at his desk. He often has to help people at their desks.
- 4 I left my mobile phone on for three days without recharging. I'm sure the battery will be flat by now. It usually only lasts a day.
- 5 I'm not sure what the problem is. I've checked the cables and they're all fine.
- 6 I can't connect to the internet. I should check whether the network cables are plugged in.

- Reading** **6** Complete this company troubleshooting guide. Use the words in brackets and language from the Language box.

Premium Monitors Limited

Troubleshooting guide

Problem: 'I can't see anything on my computer screen.'

- 1** Can the customer hear anything from the computer or see any lights on the front of it?

Yes → The computer (1) _____ (switched on). Go to question 3.

No → The computer's power cable (2) _____ (connected). Ask the customer to check the cable. Go to question 2.

- 2** Can the customer hear anything from the computer or see any lights on it now?

Yes → Go to question 3.

No → Go to question 7.

- 3** Can the customer see any lights on the edge of the monitor?

Yes → Go to question 5.

No → The monitor (3) _____ (switched on). Ask the customer to press the monitor's power button. After that, go to question 4.

- 4** Can the customer see the monitor light now?

Yes → It (4) _____ (a power problem). Go to question 5.

No → The monitor's cables (5) _____ (connected). Ask the customer to check

both cables at both ends. If this doesn't solve the problem, go to question 5.

- 5** The monitor (6) _____ (faulty). Does the customer have a spare working monitor?

Yes → Ask the customer to try the spare monitor. Go to question 6.

No → Unknown fault. Tell the customer that we can escalate to a site technician but if the problem is with the computer, there will be a fee.

- 6** Does the spare monitor work?

Yes → The first monitor (7) _____ (faulty). Replace it if it's under warranty.

No → The video card (8) _____ (faulty). Escalate to a site technician to check the video card.

- 7** Does the customer have a spare working computer? Does it work with the monitor?

Yes → It's probably a faulty video card. Escalate to a site technician to replace the video card.

No → Unknown fault. Tell the customer that we can escalate to a site technician but if the problem is with the computer, there will be a fee.

- Speaking** **7** Work in pairs. Roleplay dealing with a monitor problem using the troubleshooting guide in 6. Take turns being a caller with a blank monitor screen and the help desk technician.

Solutions

Speaking

- 1 Work in pairs. Put these steps in solving an IT problem in the correct order.

- Decide which of the possible solutions is the most likely.
- If that doesn't work, try another solution.
- Check what the symptoms of the problem are.
- Continue this process until something works.
- Think of some possible solutions.
- Try the most likely solution.

Listening

- 2  46 Listen to two repair technicians in a computer shop talking about a computer a customer has brought in for repair. Have they solved the problem yet?

- 3 Listen again and tick ✓ the tests they have tried.

- test memory replace memory replace motherboard

Language

Proposing possible solutions

We can use **should** or **shouldn't** in first conditional sentences for results we think are likely. If we are not sure, we use **might**.

If we add an extra fan, the computer **should** be fine.
If we don't add an extra fan, the computer **might** overheat.

We can also use **try** + noun/-ing to propose solutions.

Let's **try** an extra fan/**adding** an extra fan.

- 4 Complete these conversations. Use the words in brackets and language from the Language box. Add any other words necessary.

- 1 A: My app hasn't updated to the latest version.
B: Your phone settings might be wrong. If you _____ (change/settings/app/update) soon.
- 2 A: My phone isn't sending or receiving data.
B: Maybe the network connections are switched off. Try _____ (check/network and connections settings).
- 3 A: My phone's running really slowly.
B: There might be some **bloatware** on it, which you probably don't need. Try _____ (remove/it).
- 4 A: I've just got a really high phone **bill**. It's too expensive!
B: You need to be very careful with some mobile phone data plans, to make sure you don't go over your **usage** limit. If you _____ (check/usage/regularly/you/be) OK.

- 5 Complete these definitions with the words in bold in 4.

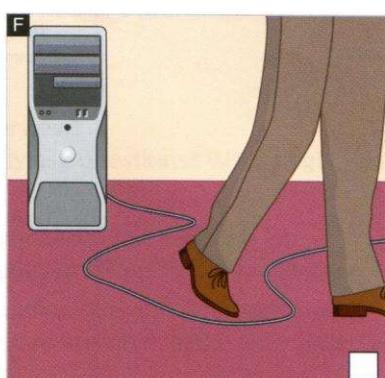
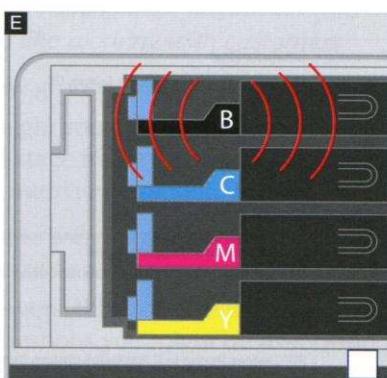
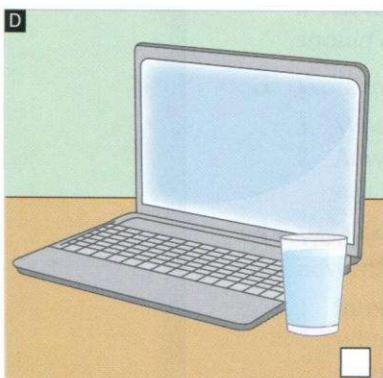
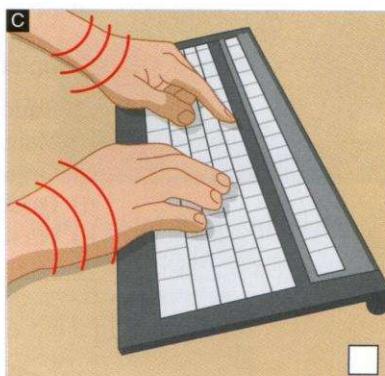
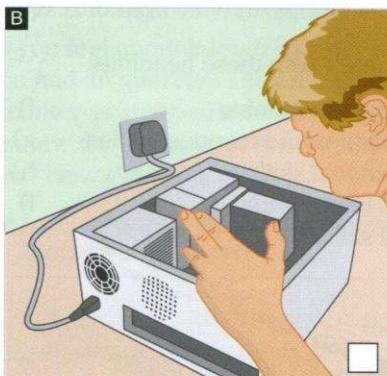
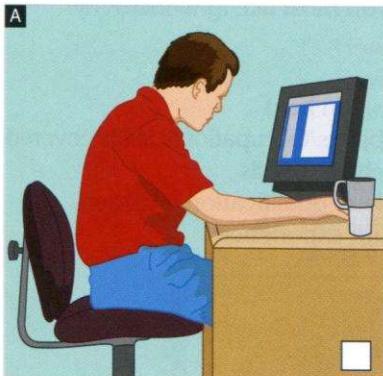
- 1 the amount of something that you can use _____
- 2 software that some computer and mobile phone companies put on their products as advertising _____
- 3 a document showing how much you have to pay for something _____

Speaking

- 6 Work in pairs. You are technicians discussing a problem. Follow the steps below and roleplay the situation. Then swap roles and repeat the activity.

- Student A: Explain the problem. (mobile phone works but not data)
- Student B: Ask what Technician 1 has done already.
- Student A: Answer Technician 2's questions. (checked settings, checked battery level)
- Student B: Make a suggestion. (try a different network)

Vocabulary 7 Match illustrations A–F to dangers 1–6 in the leaflet below. Then match dangers 1–6 to the pieces of advice a–f.



RSI = repetitive strain injury

Safety at work

Dangers X

- 1 backache
- 2 electric shock
- 3 RSI
- 4 trips and falls
- 5 short circuit
- 6 burns

Advice ✓

- a) Move the cables.
- b) Don't bend your back while sitting at a desk!
- c) Let it cool down.
- d) Unplug!
- e) Keep your wrists straight.
- f) Don't spill your drink.

Writing 8 Write a sentence for each of the illustrations in 7. Use language from the Language box on page 64.

Unplug the computer before working inside it. If you don't, you might get an electric shock.

Speaking 9 Work in pairs. Take turns to give warnings about the dangers in the illustrations in 7. Follow these steps.

- Student A: Point out a problem to Student B.
- Student B: Ask why it's a problem.
- Student A: Explain why it's a problem.
- Student B: Show understanding and ask what to do.
- Student A: Explain how to avoid the problem.
- Student B: Thank Student A for the advice.