Basic English for Computing

Eric H. Glendinning

John McEwan

OXFORD

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EVERY DAY USES OF COMPUTERS

Task 1 We use a computer in many different places. Which places can you link these document with?

Task 2 In group make a list of other places where can find computer documents. Try to say what the document are, and what they are used for.

Reading: Computer in Everyday Life

Task 3 Tick ( ) the computer uses mentioned in the following article.

- ○ Home
- ○ Hospital
- ○ Engineering
- ○ shopping
- ○ Television advertisement
- ○ Art
- ○ Banking
- ○ Libraries
- ○ Film-making
- ○ school

Computers are part of our everyday life. They have an effect on almost everything you do. When you buy groceries at a supermarket, a computer used with laser and barcode technology to scan the price of each item and present a total. Barcoding items (clothes, food and book) requires a computer to generate the barcode labels and maintainer the inventory. Most television advertisements and many films use graphics produce by a computer. In hospitals, beside terminals connected to the hospitals main computer allow doctors to type the order for blood tests and schedule operations. Banks uses the computers to look after their customers money. In libraries and bookshop, computer can help you to find the book you want as quickly as possible.

Language work: Article

Study these nouns

a supermarket   technology   a computer   money

Supermarket and computer are countable nouns.

We say supermarket and supermarkets.

Technology and money are uncountable nouns.

Study this paragraph:

Computers have many uses. In shop a computer scans the price of each item. The computer calculates the total cost of all the items.

We use a plural nouns with no article, or an uncountable noun, when we talk about things in general.

Computer have many uses.

Information technology is popular.

We say a/an when we mention a countable noun for the first time.

*In shops **a** computer scans the price of each items.*

When we mention the same noun again, we use the

The computer calculates the total costs.

We use *the* with countable and uncountable nouns to refer to specific things:

The price of each items.
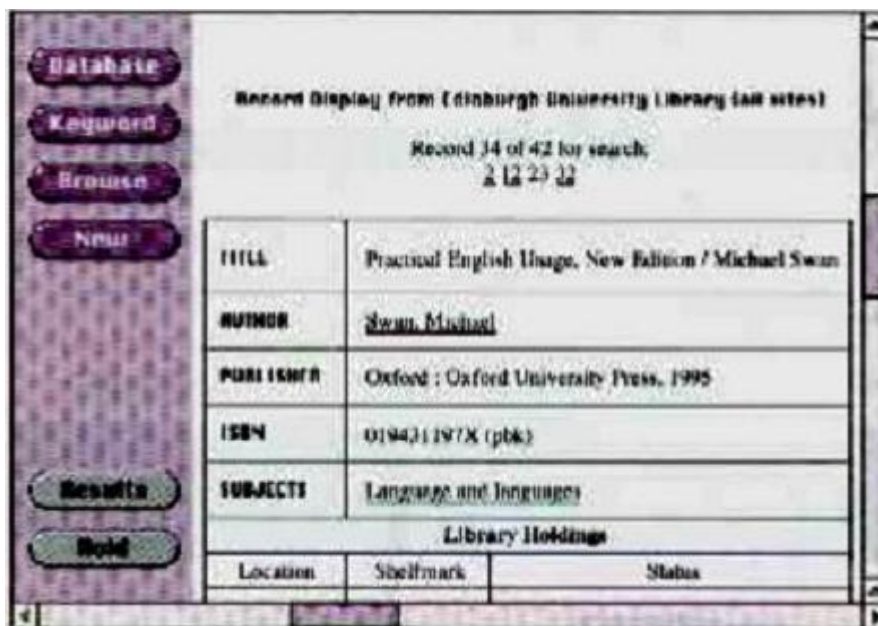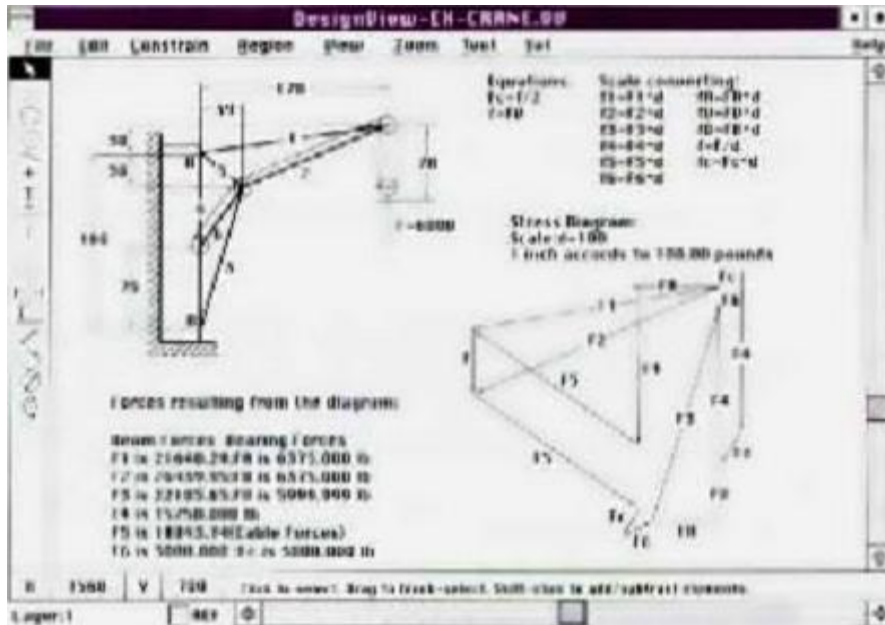
The total cost of all the item.

The speed of the computer.

Problem-solving

Task 4   study this screens. Each show program used by different occupation:

1.Who use this program?   3.what did they use before computers?
2.What do they use it for?   4.how the computer make their work easier?

Task 5 Now fill the gaps in this paragraph a bout computer uses:

Computers are now parts of our everyday. In shops, they _____.
In factories, they _____, In _____ , they look after
recorders and medicines. When we have a bank account a computer
_____, In our homes, computer _____.

TYPES OF COMPUTER

Task 1 Match these names to the different types of computer

1	Mainframe	3	Notebook	5	PC
2	Laptop	4	Handheld	6	Minicomputer

Task 2 How use this types of computer? Where do they use them? Make a list.

Reading : types of computer

Task 3 study these details of different types of computer. Find an answers to these questions. Which type of computer is:

1 The most common?
2 Small enough for a pocket?
3 The most common portable?
4 Used by many people at the same time?
5 Used like mainframes?
6 Also called a handheld computer?
7 The most powerful?
8 Not suitable for a lot of typing?

Types of computer	Note
Mainframes	Large, powerful, expensive. Multi-user systems-used by many people at The same time. Used for processing very large amount of Data, the most powerful mainframes called Supercomputer.
Minicomputer	Used like mainframe. Not as big, powerful or expensive Mainframe, less common now because Microcomputer have improved.
Microcomputer or PC (Personal Computer)	The most common type of computer. Smaller, cheaper, and less powerful than Mainframes and minicomputers.

Types of portable	Note
Laptop	About the size of a small type writer. Less common now because smaller lighter Portables are available.
Notebook	About the size of a piece of writing paper The most common type of portable.
Subnotebook	Not quite as a big as notebook. Can fit into Jacket pocket.
Handheld or Palmtop	Small enough to fit into the palm of one hand. Not easy to type with Because of their size. Often used as personal organizers.

Language work: comparison

Study this comparison of three types of computer.

	Mainframes	Minicomputers	Microcomputers
Size	+++	++	+
Power	+++	++	+
Cost	+++	++	+

We compare things using adjective in two ways
1 We can compare one type of computer with another.
   *Minicomputers are **bigger than** microcomputers*
   *Mainframes are **more expensive than** microcomputer.*

   For negative comparison, we can say
   *Microcomputers are **not as big as** minicomputers.*
   *Microcomputers are **not as powerful as** mainframe.*

2 We can compare mainframes to all other types of computer.
   *Mainframes are **the biggest** computers.*
   *Mainframes are **the most powerful** computers.*
   *Mainframes are **the most expensive** computers.*
With short adjectives (big, small, fast) we add –er and –est (faster, fastest)
With longer adjectives (powerful, expensive), we use more/ less and the
most/ the least before the adjective(more powerful, the most powerful).
 Reminder these two exceptions:
Good- better – the best   bad- worse- the worst

Task 4 Choose the correct adjective. Then fill the gaps with the correct from
of the adjective.

1 **light/ heavy**   Laptop are _____ than desktop computers, but
_____ than notebooks.
2 **large/small** The mainframe is the _____ type of computer.
 A minicomputer is _____ than a microcomputer.
3 **common/ good**   Personal computers are _____ than mainframes
computer but mainframes are _____ than personal computer at
processing very amount large of data.
4 **powerful/ expensive**   Minicomputer are _____ than mainframes
but they are also _____.
5 **fast/cheap** New computers are _____ and sometimes _____
than older machines.
6 **powerful/ expensive** Laptops are often _____ than PCs but they
are not as _____.

Writing

Task 5 Put the words in brackets into the correct from to make accurate description of size of computers.

There are different types of computer. The (*large*) _____ and (*powerful*) _____ are mainframes computer. Minicomputers are (*small*)_____ than mainframes but are still very powerful.
Microcomputers are small enough to sit on a desk. They are the(*common*) _____ type of computer. They are usually (*powerful*) _____ than minicomputers.
    Portable computers are (*small*) _____ than desktops. The (*large*) _____ portable is a laptop. (*small*) _____ portables, about the size of piece of writing paper, are called notebook computers. Subnotebooks are (*small*) _____ than notebooks.
You can hold the (*small*) _____ computers in one hand. They are called hand held computers or palmtop computers.

3

PARTS OF COMPUTER

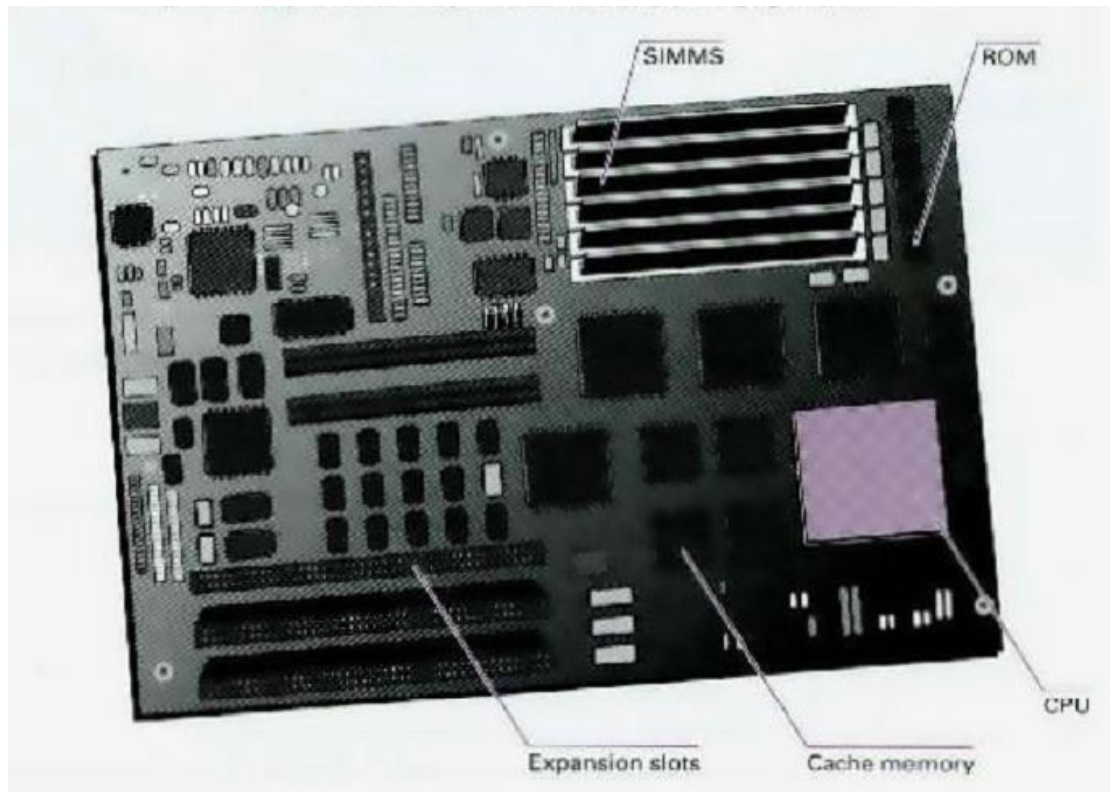**Task 1** Work in pairs. Study this diagram of the inside of a computer. You can label these component.
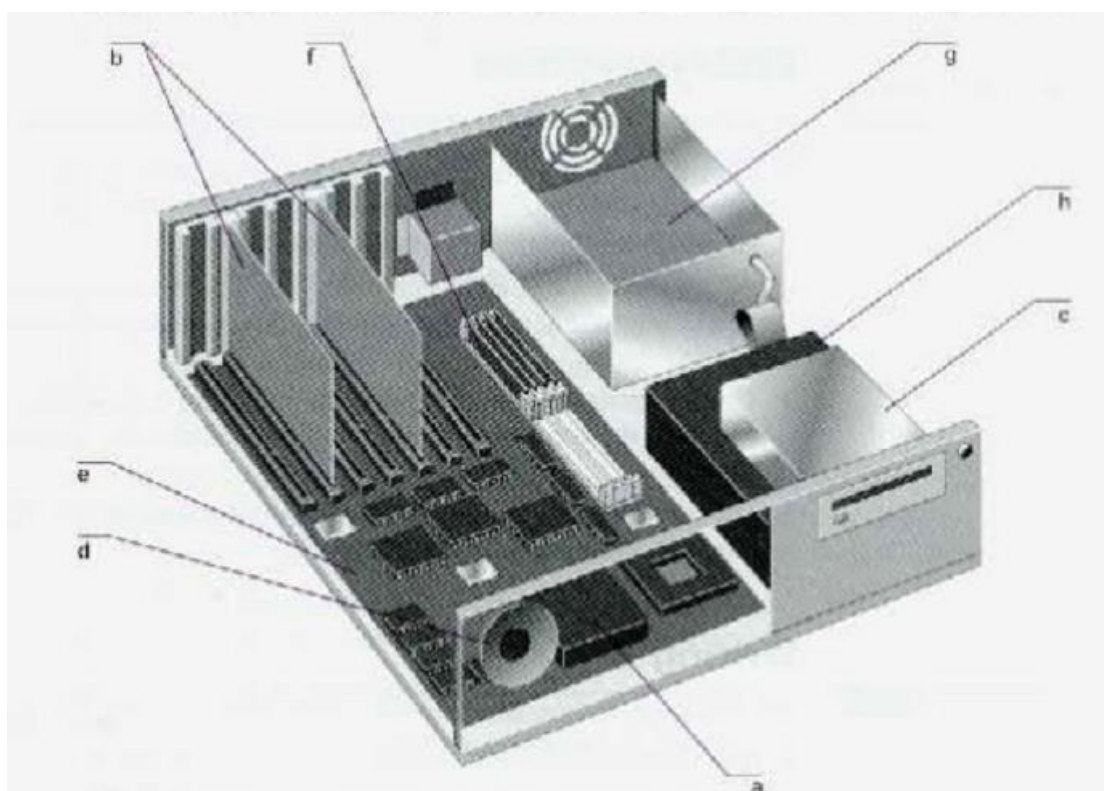
1	Hard disk drive	5	Processor
2	Motherboard	6	Speaker
3	Memory Chips	7	Expansion card
4	Power supply	8	Floppy drive

Reading : The Mother board

Task 2 Study this diagram of a PC motherboard. Match the components to their description.

1 These are memory chips. The more you have, the more work you can do at a time. Empty memory slots mean you can add more memory.
2 This is the 'brine' of the computer.
3 It's a part of the memory store. It has extremely fast access. It's faster than normal RAM. It can speed up the computer.
4 These let you add feature such as sounds or a modem to your computer.
5 This kind of memory contains all the instructions your computer needs to activate itself when you switch on. Unlike RAM, it's contents are retained when you switch off.

Task 4   Study these instructions for replacing the motherboard in a PC. Match the instruction of each picture. The pictures are in the correct order.

a   Add the processor.

b   Fit the new motherboard.

c   Remove the old motherboard.

d   Put it back together.

e   Add the memory. Don't touch the contacts.

Languages work: Making instructions

Note how we make simple instructions in English

Add the memory.   **Don't touch** the contact.

We can show the order of instructions by numbering them (1, 2, 3. ect)
Or by using sequence of word like these:

First, …
Thert, …
Next, …
After that,..
Finally,….

Task 5   Study these instruction for virus-checking a disk. Fill in the gaps with verbs from this list. Use *Don't* where appropriate.

click	exit	put	select	start

1 _____ the disk into the drive.
2 _____ the virus checking program.

3 _____ the drive to be checked.
4 _____ the ' find' button.
5 _____ the program until the check is complete.
6 _____ 'Yes' or 'No' for checking another disk.

Task 6 Study these instructions for formatting a disk in Microsoft Windows. Write the instructions in the correct order(1-6), using sequence words. You will have to use one of the words more than once.
a ( ) Select 'OK' to start formatting the disk.
b ( ) Choose 'Format' from the drop-down menu.
c ( ) Click the 'Start' button.
d (1) Put the disk into the drive.
e ( ) Choose the formatting option you require.
f ( ) Click the 'OK' button when formatting is complete.

Problem solving

Task 7 Work in pairs. Study this diagram. It shows the ports at the back of the desktop PC. With the help of the test below match these labels to the correct ports.

1 keyboard	2 parallel port	3 serial port	4 COM1	5 video port

Desktop PC ports and connectors

External devices connect to ports at the back of the computer. Different types of port are used for each device. Most computers have: 1 keyboard port, 1 video port, 2 serial ports, 1 parallel port. Some also have a mouse port.

The mouse port and the keyboard port look exactly the same but they have labels to avoid confusion. If there is no mouse port, a serial mouse must be used. This connects with one of the serial ports. You can use the other one for a modem. The serial ports often have the labels COM1 and COM2.

The monitor connects to the video (VGA) port. The printer uses the larger parallel port.
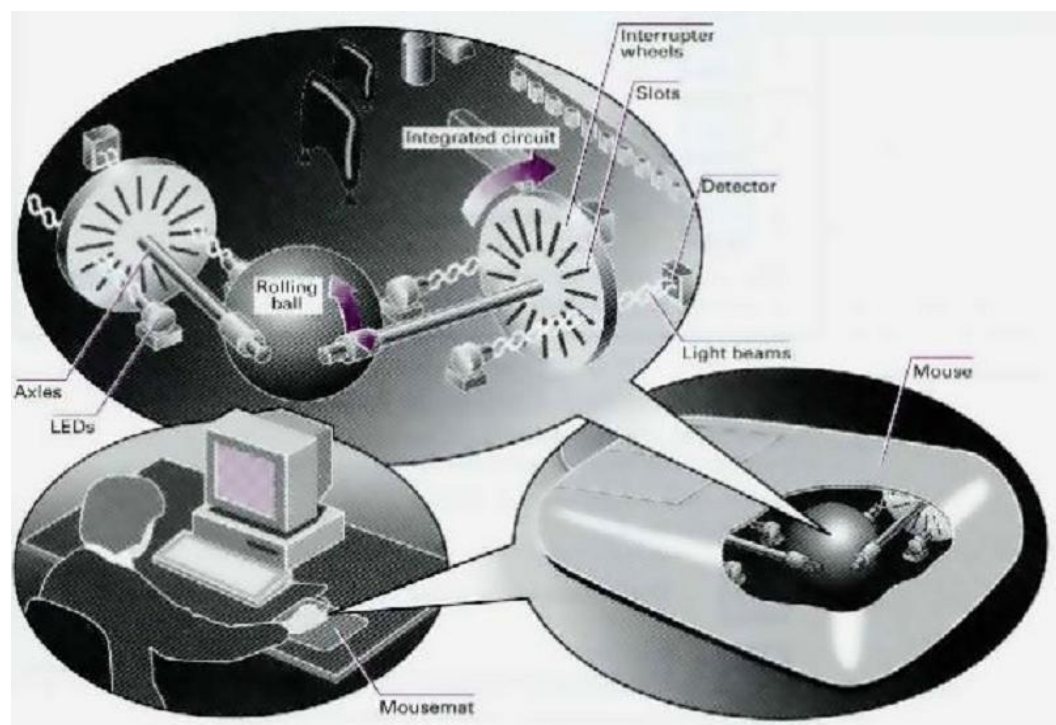
KEYBOARD AND MOUSE

Task 1 Match this keys abbreviations with their full names.

1	Esc	a	Alternate
2	Alt	b	Page up
3	Ctrl	c	Delete
4	Pgdn	d	Insert
5	Pgup	e	Escape
6	Ins	f	Page down
7	Del	g	Control

Reading: The mouse

Task 2 Study this diagram which explains a common type of mouse works.
Then Complete each of these statements with one word.

1 Move the mouse to the left and the cursor move to the _____.
2 The mouse contains a rolling _____.

3 There are _____ axis inside the mouse and two interrupter wheels.
4 When you move the mouse the ball _____.
5 The mouse moves over a mouse _____.

Task 3 Now read this text to check your answer.

The computer mouse is a hand-operated device that lets you control more easily the location of the pointer on your screen. You can make selections and choices with the mouse button.

The mouse contains a rubber-coated ball that rests on the surface of your working area or a mousemat. When the mouse is moved over that surface, the ball rolls. 5

The ball's movements up and down, and left and right, turn the two axles inside the mouse. As they turn, detectors register the changing position. A small integrated circuit inside the mouse sends signals to the operating system, which instructs it to move the 10 pointer on your screen.

Languages Works: Present Simple

Study these statements about keys.

1   This key ***moves*** the cursor down.

2   This keys ***copies*** the screen display.

3   This key doesn't ***have a fixed*** function.
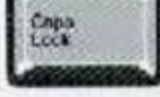
The verbs in italics are in the Present simple. We use the Present Simple to describe things which are always true.

Task 4 look at the statements (1-7) and correct the ones are wrong.
Example This key move the cursor down.
It doesn't move the cursor down. It moves the cursor up.

What does this key do?

1	↑	This key moves the cursor down.
2	←	This key moves the cursor to the right.
3	Del	This key inserts a character.
4	Print Screen	This key copies the screen display.
5	Page Down	This key moves the screen up.
6	None	This key doesn't have a fixed function.
7	Caps Lock	This key gives you all lower case letters.

Specking

Task 5 Match these symbols with their names to complete this table.

a **@**   b **/**   c **~**   d **:**   e **.**   f **_**

Symbol	Name	Symbol	Name
☐	colon	☐	forward slash
☐	tilde	☐	at
☐	underscore	☐	dot. stop

5

INPUT DEVICES
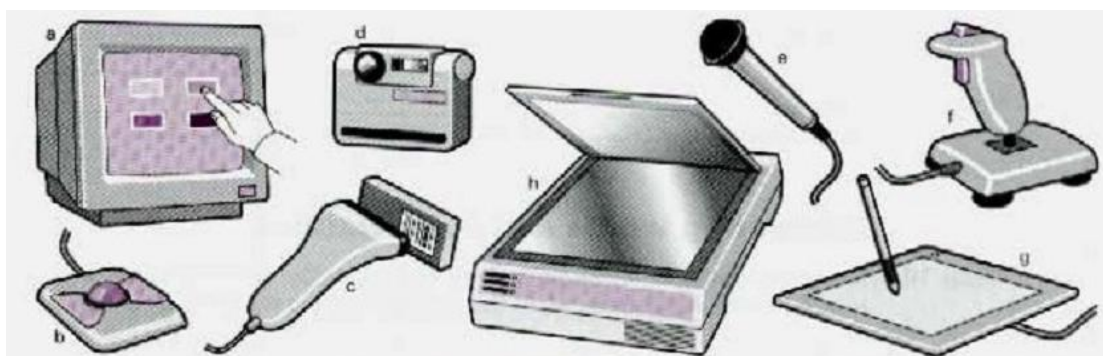
Task 1 Match these Pictures of input devices with their names.

Joystick	Barcode Reader	Graphics tablet	Digital Camera
Tracker ball	Scanner	Touch screen	Microphone

Task 2 In pairs, try to list uses of these devices.

Reading:
Task 3 Study this diagram. It shows how voice input works. Label the steps in the process with these captions(a-e).
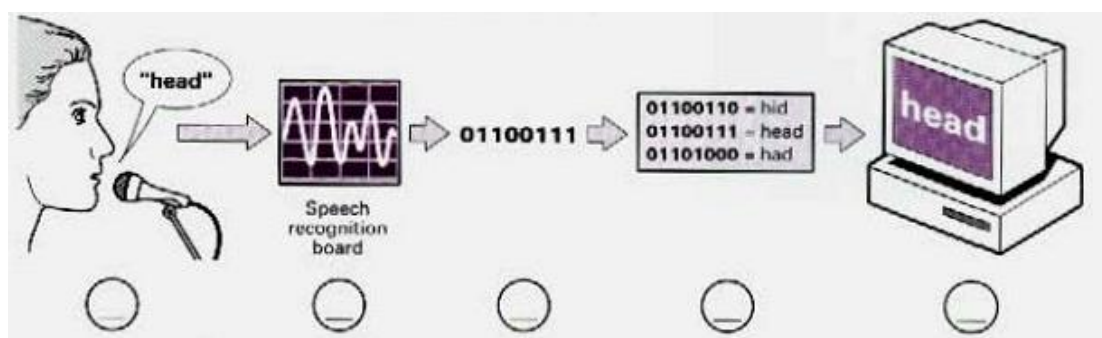
a The computer compares the binary code with it stored vocabulary.
b The uses says a word into a microphone.
c The screen displays the correct word.
d The speech recognition board converts the singles into binary numbers.
e The microphone converts the word from audio singles into electronic singles.

Task 4 Match each device (1-7) with its use (a-g).

	Device		Use
1	joystick	a	a draw pictures on to a computer screen
2	light pen	b	copy document s
3	scanner	c	input sounds
4	digital camera	d	input text
5	mouse	e	select from a menu
6	keyboard	f	Move the cursor rapidly
7	microphone	g	produce photos without film

Task 5 Describe the use of each device in a sentences.
Use these structures from the language work section.
...is/are used in...
...is/are used for...-ing
Using…. You can…
You can use… to…
Examples: You use a mouse to select from a menu.

Problem-Solving

Task 6 In groups, Decides which input device is best for:

1 controlling fast-moving objects in a game.
2 reading the price of things in a shop.
3 making a copies of a page of text and graphic.
4 storing sounds on a computer.
5 producing pictures of people and places for storing a computer.
6 controlling a computer using speech.
7 typing text into a computer.

Writing

Task 7 with the help diagram. Fill the blanks in this comparison of digital cameras and film cameras.

Digital cameras don't use film. You take pictures on to solid state memory. Then you _____ them to a _____. You can _____ and improve the pictures in your PC. Then you can _____them, add them to your_____, or _____ them on the screen.

　　Digital cameras are more_____ than film cameras but the cost for each picture is lower because there is no_____. It's also easy to_____ the pictures.

Film cameras are cheaper but each picture costs a lot because there are_____ costs. The quality of film camera pictures is much _____ than digital cameras but you have to _____ the pictures to transfer images to a PC.
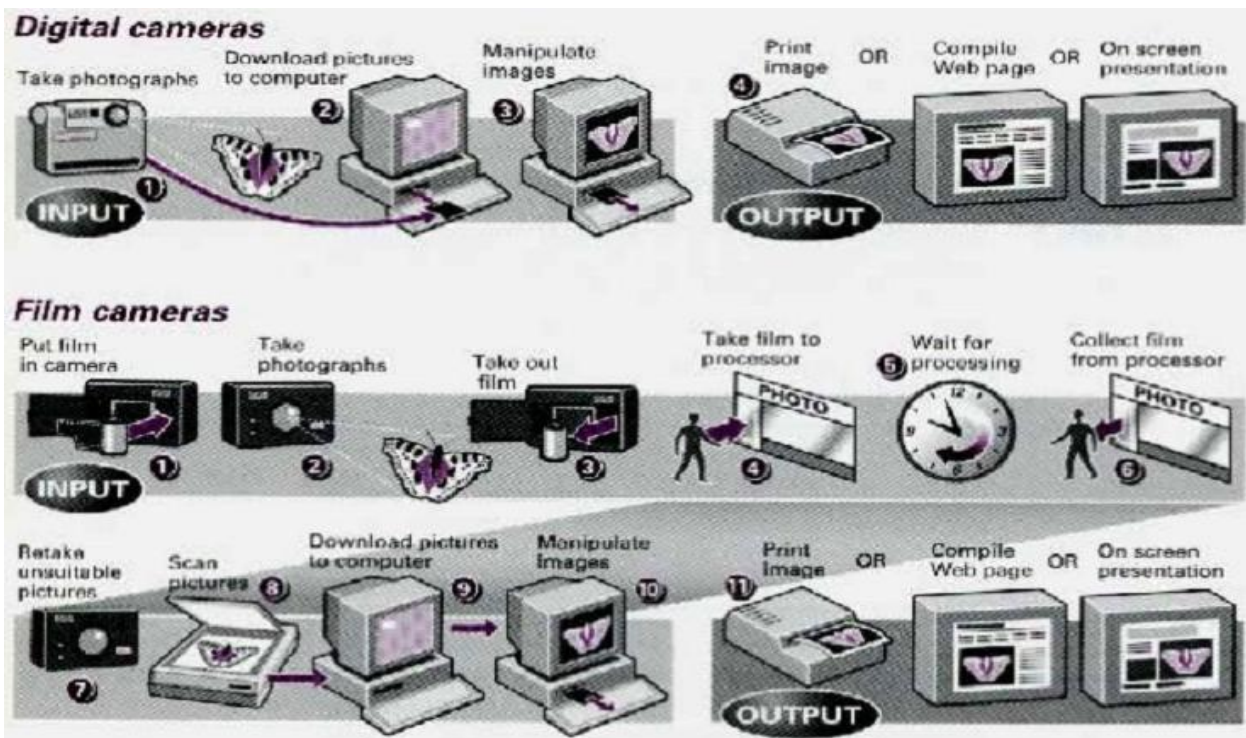
OUTPUT DEVICES

Task 1 Think about a typical workstations. Match the item (1-7) to the guidelines (a-e).

1	keyboard	4	copyholder	7	printer
2	monitor screen	5	chair		
3	lamp	6	footrest		

a   This should be adjustable and provide good back support.
b   This should be more than a meter away from you and as quit possible.
c   Keep this level with your eyes. Don't have it level with the desk. Make sure it is flicker-free, and that you can read everything easily. Avoid any glare from the window.
d   Use this if your feet do not rest flat on the floor.
e   Make sure this lights your work and not the screen.
f   Don't get a stiff neck. Use them when you enter a lot of data.
g   Keep this directly in front of you and within easy reach.

Reading

Task 2 Kinds of printers:

Laser printers :
Produce high print quality at high speed. There are called" Laser printer" due to the fact that contain a small laser within them. There is a wide range of laser printer manufactures and one buzzword to be aware of is postscript, a type of printer which designed to give very high quality reproduction of pictures.

Inkjet printers:
Work by using tiny jets to spray ink onto the paper. Inkjet printer are very quite in operation and produce print quality comparable to that of laser printers, thought laser printer still have edge in terms of speed. Inkjet printers are ideal for low volume printing where high quality print is required and speed is not a high priority.

Dot Matrix printers:
Dot matrix printers work by firing a row of pins through an ink ribbon onto the paper. The more pins the print head has he higher the quality of the print, most modern dot matrix printers have 24 pins. Unfortunately, dot matrix printers can generate a lot of noise and don't produce a very high quality of print, especially when printing graphics.

Work language: Giving advice
You can advice a people in different ways. Study these examples.
Advising people to do something:
Why you don't buy an inject?
(*I think*) you should buy a laser.
Advising people not to do something:
Don't buy a dot matrix.
You shouldn't by a laser.
To make your advice more effective, add a reason:

advise	reason
Why don't you by an inkjet?	They're very quiet.
(I think) you should buy a laser	The print quality is excellent
Don't by a dot matrix	There is very noisy
You shouldn't by a laser	They're very expensive.

We use too to make our advice stronger. almost a warring. Study these examples:
You should adjust your monitor. It's too bright.
You should move your printer. It's too close.

Task 3 Advice the user of this workstation on improvements she should make.
Example: I think you should use a chair with back support. It's more comfortable.

Problem-solving

Task 4   Work in pairs. Study this flowchart for choosing a printer. Decide which is the best kind of printer for these users.
Someone who needs to:

1 print forms with two parts.
2 print high quality black and white copies.
3 print a lot of colour photos in a short times
4 print a few copies-color and speed are not important.
5 print a few pages in color.
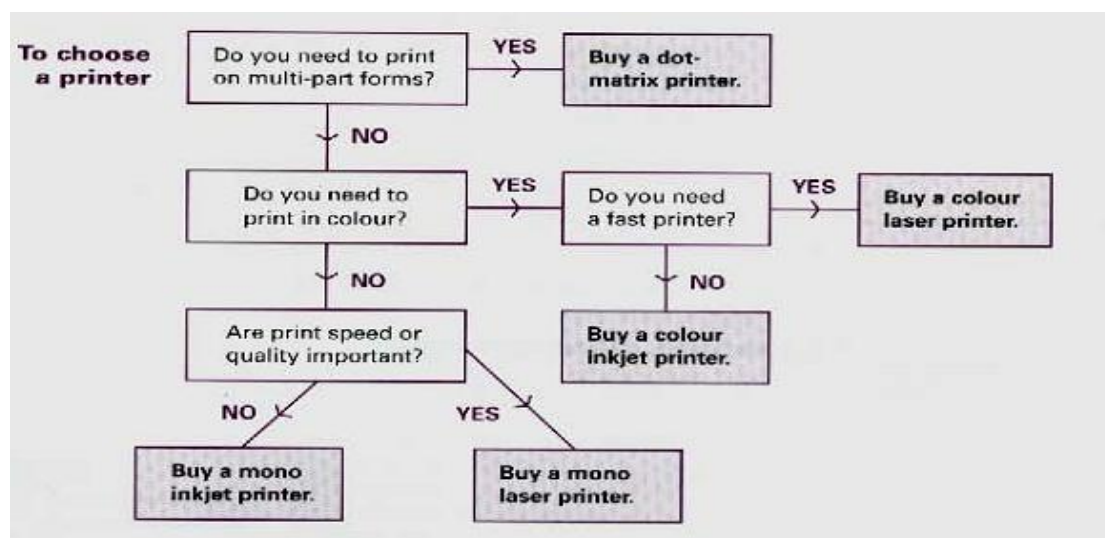
Writing

Task 5 Fill the gaps in this comparison of printers.

There are three types of printer: dot-matrix, inkjet and laser.
Dot-matrix printers are the _____ kind of printer, _____ there print quality is low and they are slow and _____. There are _____ to run.
Inkjets are _____ expensive, but you get _____ quality and quieter operation. However, they are relatively_____ and also_____ to run. They are a good choice for color.
Laser printers give the _____ quality of output. They print _____ than either of the other two _____ of printer and they cost_____ to run than inkjet. Unfortunately, they _____ almost twice as _____ as an inkjet.

7

GRAPHICAL USER INTERFACE

Task 1 A Graphical User Interface (GUI) makes computer easier to use. A GUI icons. Icons are pictures which present program, folder and files. You can identify any of these icons?
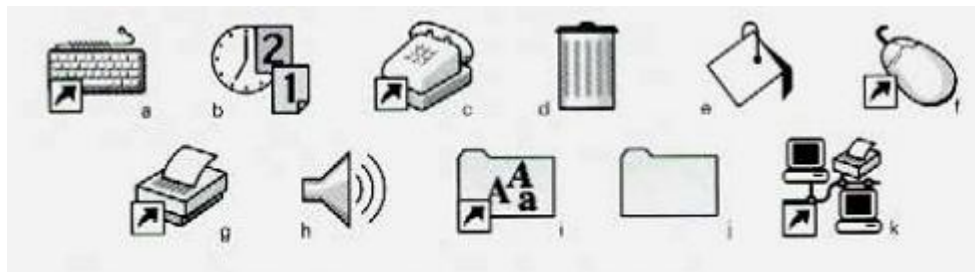
Task 2 Find the icons for the software which controls these item.

1 Data and time	3 Fonts	5 A modem
2 The mouse	4 The keyboard	6 Sounds

Task 3 Here are steps for using this dialog box. Put them in the correct order.

a Enter name, location and text required   c Choose tab
b Press Find Now command button   d Open dialog box
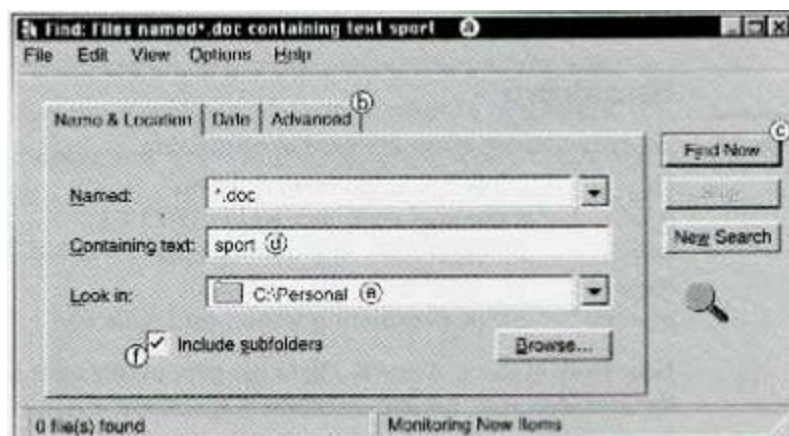
Task 4 Study this screen display. Can you find these items?

1 a window   2 an icon   3 a pointer   4 a menu
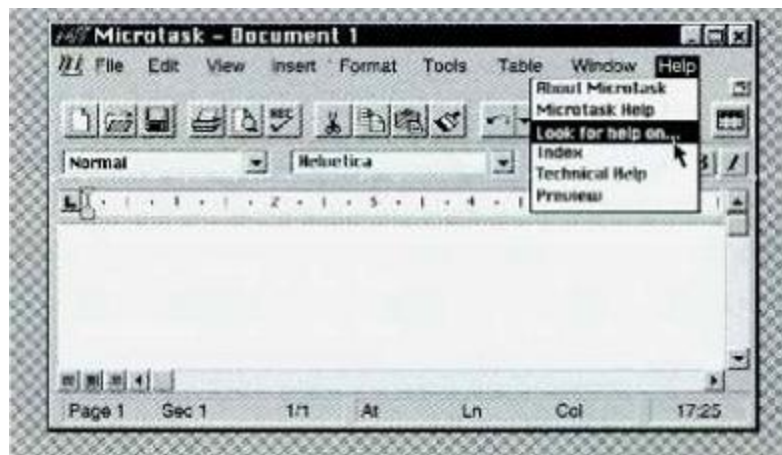
Reading

Task 5 Find definitions in the text of these items.

1	menu	3	window	5	pointer
2	interface	4	Active window	6	icon

Most computers have a Graphical User Interface. The interface is the connection between the user and the computer. The most common type of GUI uses a WIMP system. WIMP stands for Window, Icon, Menu (or Mouse), Pointer (or Pull-down/Pop-up menu).

Windows A window is an area of the computer screen where you can see the contents of a folder, a file, or a program. Some systems allow several windows on the screen at the same time and windows can overlap each other. The window on the top is the one which is 'active', the one in use.

Icons are small pictures on the screen. They represent programs, folders, or files. For example, the Recycle Bin icon represents a program for deleting and restoring files. Most systems have a special area of the screen on which icons appear.

Menus give the user a list of choices. You operate the menu by pressing and releasing one or more buttons on the mouse.

The pointer is the arrow you use to select icons or to choose options from a menu. You move the pointer across the screen with the mouse. Then you click a button on the mouse to use the object selected by the pointer.

Writing

Task 6 Write a description of the Exit Window dialog box. Your description should answer these questions.

1   What does this computer screen show?
2   What do you use this dialog box for?
3   What features does the dialog box contain?
4   What happens if you click on each button?

Problem-solving

Task 7 Work in pairs. Study these forms the cursor can take on your computer. Try to match each icon to one item from the list below.

1 hourglass	5 crosshair
2 arrow pointer	6 magnifying glass
3 pointing finger	7 Drag and drop arrow
4 not available	

NETWORKS

Tuning-in

Task 1 Study this example of a local area networks (LAN). Answer these questions.

1 Who are the users?
2 What kind of hardware is used?
3 What do the doctors are use it for?
4 What do the receptionists use it for?
5 What does the practice manager use for it?

Newtown Health Centre
Local Area Network
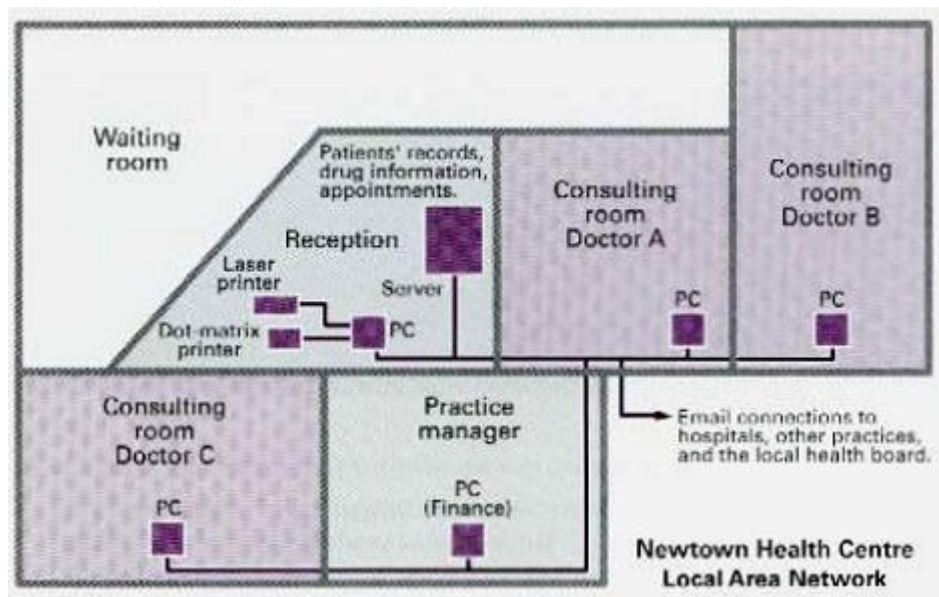
Task 2 Work in pairs. List some places where you might find a local area network.

Reading: Networks

Task 3 Study these diagram. Then answer the questions.

1   What is a network?

2   What are its hardware
    component?

3   What is different between LAN
    and WAN?

4   What advantages do you think
    network have?
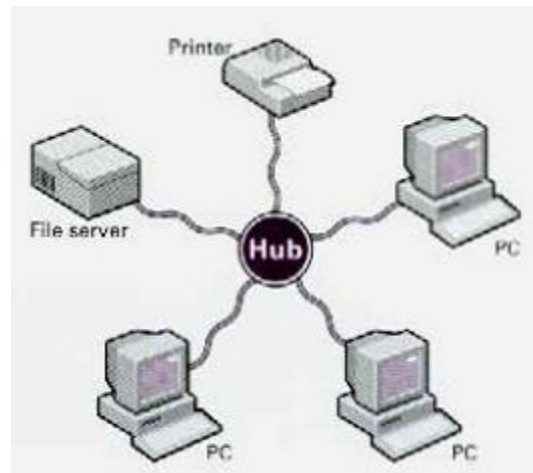
Task 4 Now reading this text to check your answers to task 3

What is a network?

A network is simply two or more computers linked together. It allows users to share not only data files and software applications, but also hardware like printers and other computer resources such as fax.

Most networks link computers within a limited area – within a department, an office, or a building. These are called Local Area Networks, or LANs. But networks can link computers across the world, so you can share information with someone on the other side of the world as easily as sharing with a person at the next desk. When networks are linked together in this way, they are called Wide Area Networks, or WANs.

Networks increase productivity by allowing workers to share information easily without printing, copying, telephoning, or posting. They also save money by sharing peripherals such as printers.

Task 5 With the help of the diagram on this page and the text above, identify these hardware components of the network.

1 _____ Most networks have at least one central computer which all the desktop computers connect to. This is the most important computer on your network. It stores the data files and application software programs that the users need to access or share with others.
2 _____ This is the desktop computer or notebook computer on your desk. It is linked to the server, and can access files and applications on it. Each computer on the network has a device called a network interface card which connects the computer to the network. Many computers come with these card fitted as standard.
3 _____ Once you have a network you can share any number of these, including printers, scanners, CD-ROM drive and backup drive.

4 _____ Desktop typically connect via telephone-type cabling to this intermediary device, which enables communications between server and desktops.

Network topology

Task 6 Study these diagram. They show four network topologies. Try to match diagram with the correct name.

| 1 ring | 2 bus | 3 star | 4 mesh |
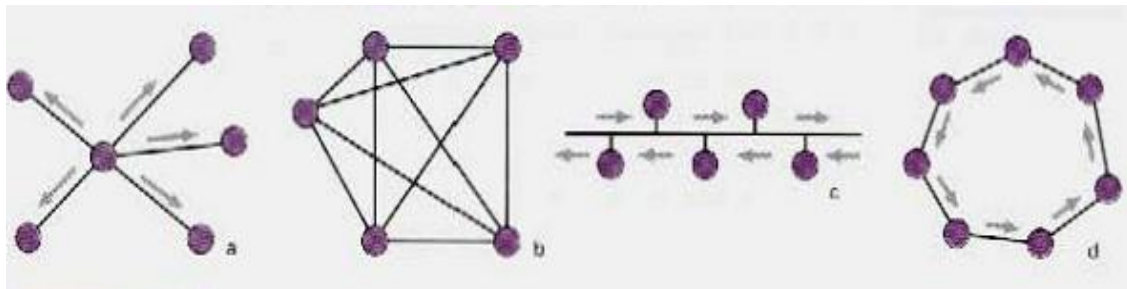
Task 7 Which topologies do these statements refer to?

1 If one of the computers fails, the whole network will be affected.
2 If we remove a computer from the network, it won't affect the other computers.
3 If the main cable fails, the whole network will fails.
4 If the central server fails, the whole network will fails.
5 If a cable breaks, the whole network will be affected.
6 If a computer fails, it won't affect the other computers.

Language work: Predicting consequence

The sentences in **Task 7** predicate the consequence of an action. For example:
The cable fails. The whole network will fail.
  (action)   (consequence)
*If the cable **fails**, the whole network **will fail**.*

Note that the action is in the Present simple, and the consequence in the will future.
Study these other examples:
If you don't use the right password, you won't get access to the network.
If you don't save your document, you will lose the information.

Problem-solving

Task 8 study these rules for passwords. Their decide if the passwords which follow are good or bad. Explain your answer.

Network passwords

Usually you need a password to use a network. It is important to keep your password secret. The following rules make a password more difficult to guess.

Passwords *should*:
1 be at least 6 characters long
2 have a mixture of numbers and letters
3 have a mixture of capital and small letters
4 be easy to remember.

Passwords *should not*:
5 be a word from a dictionary
6 be a common name
7 include spaces, hyphens, dots, or symbols with a special meaning in computing, e.g. $, *, etc.

1	Colibarte	5	Eztv 3xq
2	Tom3	6	Zuta.bal5
3	7Azab	7	4epilon
4	6Biscuit	8	Zabidon5

THE WORLD WIDE WEB

Reading: Webpages

Task 1 Study these simple WebPages. Classify them as:

1 news	2 sport	3 entertainment	4 education

Task 2 Now match each webpage to the correct text.

A   Offering unparalleled access to world news and current affairs, the internet lets you keep up with the latest stories as they happen.
Newspapers from around the world are available online, and TV news services, such as CNN (Cable News Network) and Sky TV, offer excellent coverage. There are even special internet news sites, including some designed for children.

B   Whatever your favorite sport, it is likely to have at least one devoted fan who has prepared a website dedicated to it. By visiting the site, you can pick up the latest news and gossip, and even chat to other fans

around the world. As you might expect, football fans are well catered for on the web with a mass of information on famous teams, league position, fixtures, and player profiles.

C   Keeping up with your favorite band, finding out about exhibitions, or simply organizing your TV viewing is easy on the web. Major TV companies have their own sites where you can find a wealth of information on TV shows and the activates of your favourite celebrities. If you want to find a restaurant, see a movie, or just visit a new bar, you will find the internet a great resource.

D   You can study for school or college and even obtain a degree using the internet. Universities from around the world have sites and some offer on-line courses. Most schools now have an internet connection, and many schoolchildren use it for research and for keeping in touch with school abroad. Children can also visit special online exhibitions created by world-famous museums.

Task 3   Look at this page from the CNN website. It contains a number of links labeled (a-h). Find the links which enable you to:

1   get the story behind the headline in full.
2   post your own message about current events.
3   search previous news stories for any reference you want.
4   interact with other readers live using your keyboard.
5   see the advertisement.
6   change to Spanish.
7   see the news in brief.
8   watch videos of news stories.

Language work: -ing forms

Study these examples:
>   **Keeping** up with your favorite team is easy on the Web.
>   By **visiting** the site you can pick up the latest news.

We can often use the –ing form of verbs like nouns.
>   **Browsing** the Web is popular.
>   Some people like **shopping** online.

We use the –ing form after prepositions.
>   Without **leaving** home you can visit any country on the Web.
>   By **clicking** on the link you can move to another page.

Task 4   complete each gaps in these sentences with the –ing form of an appropriate verb form this list:

back up	become	enter	find	keep up	learn
link	receive	select	send	use	

1   _____ with the latest news on your favorite team is easy on the web.

2   One of the most useful feature of the Internet is _____ and _____ email.

3   The grandfather, father, son method is one of _____ your documents.

4   Fiber-optic cable can be used for _____ computers in a network.

5   Search engines are ways of _____ information on the Web.

6   _____ a keyboard is the commonest way of _____ data into a computer.

7   _____ audio and video attachments is possible with email.

8   _____ a programmer means _____ a number of programming languages.

9   The White Pages are for _____ email address.

10   _____ an option in a menu is easy with a mouse.

Task 5   Try to answer these questions using an –ing form:

Example: How do you draw pictures on a computer?
By using a graphics package.

How do you:

1   find a website?
2   select an option on a menu?
3   move rapidly through a document?
4   return to your starting page on the Web?
5   store favorite sites?
6   share ideas with other Internet users on a subject you're interested in?
7   increase the speed of your computer?
8   send voice and text messages to other Internet users?
9   end a search on the Web?
10 move the cursor round the screen?

Problem-solving

Task 6 Work in pairs. Decide which of the sites (a-j) to visit in order to find information on the following topics (1-10).

1	The latest scientific developments	**a**	www.admarket.com
2	Caring for your cat.	**b**	www.bubble.com/webstars/
3	Calculating your tax	**c**	www.buildacard.com
4	New cars	**d**	www.carlounge.com
5	Advertising on the Web	**e**	www.encenter.com/ski/
6	Books on sport	**f**	www.peteat.co.uk
7	Sending a virtual greeting card	**g**	www.moneyworld.co.uk
8	Economic data on Bulgaria	**h**	www.newscientist.com/
9	Your horoscope	**i**	www.thebookplace.com
10	Ski conditions in Europe	**j**	www.worldbank.org

STORAGE DEVICES

Tuning-in

Task 1 Study these rules for CD-ROM and floppy disk care. Tick (✓) things to do and cross (✗) things not to do. Then compare your choice with a partner.

1 (   ) Hold a CD-ROM by the edges.
2 (   ) Keep the optical/silver side of a CD-ROM clean.
3 (   ) Smoke when you use tour CD-ROM drive.
4 (   ) Put floppy disks near a magnet.
5 (   ) Keep disks away from the sun and excessive heat.
6 (   ) Write the contents on the label on your floppy disk.
7 (   ) Put extra labels on floppy disks.
8 (   ) Remove by force a disk stuck in the drive.
9 (   ) Remove a disk when the drive light is on.

Task 2 Hard disk drive.

1 (   ) drive motor.
2 (   ) sealed case.
3 (   ) disks.
4 (   ) read/write heads.
5 (   ) head motor.
6 (   ) gap between disks.
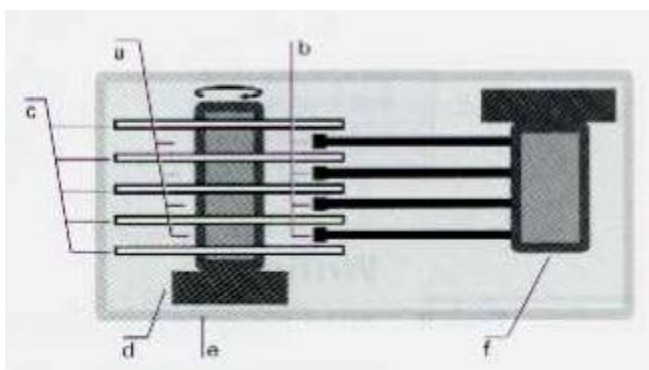
Reading: Storage devices

Task 3

There are many different kind of storage device for computer, and developments are taking place all the time. List the storage devices mentioned in this unit so far. List any other storage devices you know.

Task 4   Work in groups of three. Read two texts each and complete your sections of the table.

Medium	Advantages	disadvantages
Floppy disk		
Fixed hard disk		
Removable hard disk		
CD-ROM disk		
Magneto-optical disk		
Magnetic tape		

A Most computers use floppy disks. Floppies conform to a standard and you can use them to carry data from one place to another. They are also very cheap, but they are slow and have a limited capacity.

B Almost all desk computers have hard disks. They are fast and can store much greater amounts of data than floppies, but they are fixed inside computer and you cannot use them to transfer data.

C You can move data from place to place using removable hard disks. They are almost as fast as fixed hard disks and also have high capacities, but they are relatively expensive. They do not all conform to one standard and they are not very common.

D CD-ROM disks are very common and conform to a standard. They are removable and can hold large amounts of data. They are also cheap to make. However, they are usually read-only. You cannot change the information on them. They are also slow compared to hard disks.

E Magneto-optical disks are like CD-ROM, but you can write data on to them. They are removable, have large capacities, and last for a long time, but they are expensive and do not all conform to one standard. For this reason they are not very common.

F Magnetic tape is a cheap medium. You can use it to store very large amounts of data, but it dose not allow random access. Every time you read or write a piece of data, you star at the beginning for doing backups.

Language work: Linking words

Study these examples:

>Magnetic tape is cheap, but it is very slow **because** tape drives slow, so we use it only for backups.

We use but to show a contrast, because to show that the next idea is a reason, and so to show a result. Other words and phrases used in this way are: however (contrast), therefore (result), and for this reason (result).

>Magnetic tape is cheap. **However**, it is slow to use.
>Magnetic tape is slow. **Therefore**, we use it only for backups.
>Magnetic tape is slow. **For this reason**, we use it only for backups.

Task 5   Fill in the gaps in this summary of storage devices using the correct word from this list.

but   however   because   so   therefore   for this reason

Floppies are very cheap. __1_____ they are slow and have a limited capacity. Hard disks are fast and can store large amounts of data __2_____ they are fixed inside the computer. __3_____ you cannot use them to transfer data. You can transfer data with removable hard disks. __4_____ they are expensive. CD-ROM disks can hold quite large amounts of data. __5_____, they are usually read-only __6_____ you cannot change the information on them. Magneto-optical disks are like CD-ROMs __7_____ you can write data on to them. They are removable and large capacities. __8_____ they expensive and do not conform to a standard. __9_____ they are not very common. Magnetic tape is cheap and has a large capacity. __10_____ it dose not allow random access and drives are slow. __11_____ it is only suitable for backups.

Problem-solving

Task 6   Study this description one method of backing up your files. Work in pairs to complete the label and answer the questions.

Establishing a comprehensive backup regime

Buy 10 tapes and label them Monday, Tuesday, Wednesday, Thursday, Friday 1, Friday 2, Friday 3, Month 1, Month 2, Month 3.
For the first week, back up everything on each day to the appropriately named tape, and on Friday, use Friday 1. in week 2, do the same but use Friday 2, and in week 3 use Friday 3.   5
In week 4, do exactly the same, but on Friday use Month 1. do the same for the next two months, but on the last Friday of each month, use Month 2 and Month 3. then start the whole cycle again.
Write ten tapes, at any point in time you have full daily backups for the last week, full weekly backups for the last month, and full monthly backups for the last three months.   10

Fill in the gaps in this table.

Tape	Label	Tape	Label
1	Monday	**6**	Friday 2
2		**7**	
3	Wednesday	**8**	
4		**9**	Month 2
5		**10**	

Which tape do we use on these days?

1 Friday, Week 2   **3** Thursday, Week 1   **5** Friday, week 8
2 Friday, Week 4   **4** Monday, Week 2

11
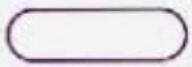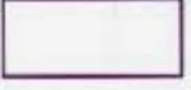
PROGRAMMING

Tuning-in

Task1: Work in Paris. The stages in programming (1-7) are listed below. Fill the gaps with the missing stages (a-d).

1 Analysing and defining the problem to be solved

2 _____

3 Coding

4 _____

5 _____

6 _____

7 Obtaining feedback from users

a Training the users

b Testing

c Designing the program

d Documenting

Task2: Look at stage 1 of the list in Task 1. Discuss how you would analyse and define the problem.

Task3: Programmers sometimes use flowcharts when planning program. Look to each Figure to identify these symbols used in flowcharts.

a _____   b _____   c _____   d _____   e _____

Reading: Types of errors

Task 4 Work in groups of three. Read one of the texts below and complete this table. When you have finished, exchange information with the others in your group to complete two similar tables.

Type of error	
Definition	
Example	
Ways to avoid or deal with this kind of error	

Text A **System errors** affect the computer or its peripherals. For example, you might have written a program which needs access to a printer. If there is no printer present when you run the program the computer will produce a system error message. Sometimes a system error makes the computer stop working altogether and you will have to restart the computer. A sensible way of avoiding system errors is to write code to check that peripherals are present *before* any data is sent to it. Then the computer would warn you by a simple message on the screen, like 'printer is not ready or available'.

Text B **Syntax errors** are mistakes in the programming language (like typing PRNIT instead of PRINT). Syntax errors cause the program to fail. Some translator programs won't accept any line that has syntax errors. Some only report a syntax error when they run the program. Some languages also contain special commands such as *debug*, which will report structural errors in a program. The programming manual for the particular language you're using will give details of what each error message means.

Text C **Logic errors** are much more difficult to detect than syntax errors. This is because a program containing logic errors will run, but it won't work properly. For example, you might write a program to clear the screen and then print 'hello'. Here is a code for this:

```
10// Message          30 CLS
20  PRINT 'Hello'      40 END.
```

The code has a logic error in it, but the syntax is right so it will run. You can get rid of logic errors from simple programs by 'hand-testing' them or doing a 'dry run' which means working through each line of the program on paper to make sure it does what you want it to do. You should do this long before you type in the code.

Task 5:

Match these problems and solutions. Link them following the examples above.

Problems	Solutions
1 connect a computer to a telephone line	a write code to check a peripheral is present before any data is sent
2 identify items for pricing	b use the *debug* command
3 add extra facilities to a computer	c add more memory
4 get more file storage space	d format the disk
5 find syntax errors	e use a removable disk
6 avoid marking the surface of a CD-ROM	f install an expansion card
7 improve the speed of your computer	g install a modem
8 avoid system errors	h fit a bigger hard disk
9 prepare a new disk for use	i use barcode labels
10 transfer information between computers	j hold it by the edges

Problem-solving

Task 6:

Draw a flowchart for one of these activities. Then compare your completed flowchart with other students in your group.

- using a payphone
- planning a holiday
- choosing a new computer
- preparing for an important exam

COMMUNICATIONS

Tuning-in

Task 1: Identify the different communication links between the office desktop in a San Francisco police-station and the mainframe in Georgia State police headquarters. Choose from this list.

1	fiber-optic cable	4	microwave transmission
2	earth-satellite transmission	5	satellite-earth transmission
3	telephone wire		
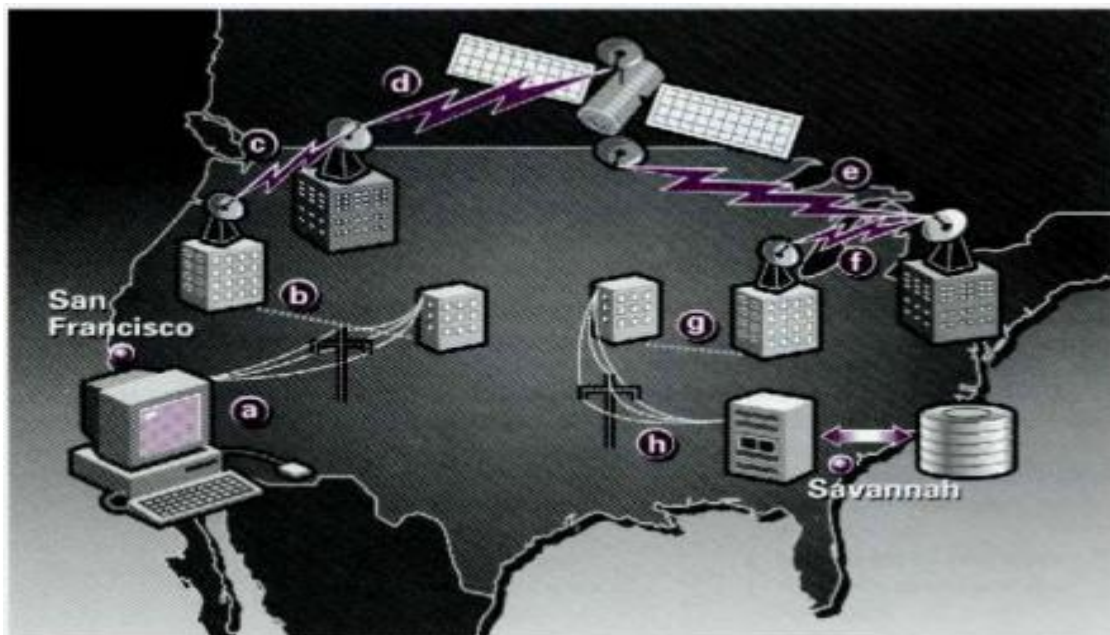
Task 2: Work in Paris, try to think of other organizations which use long-distance computer communication to exchange information.

Task 3: Voicemail
Study this diagram of a voicemail system, Match each picture to the correct caption.
  a   The digital message is stored in voice mailbox on desk.
  b   The caller dictates the message.
  c   When the recipient dials the mailbox, the message converted back to

analogue signals and delivered in audio form.

d   The message is converted from analogue to digital singles.
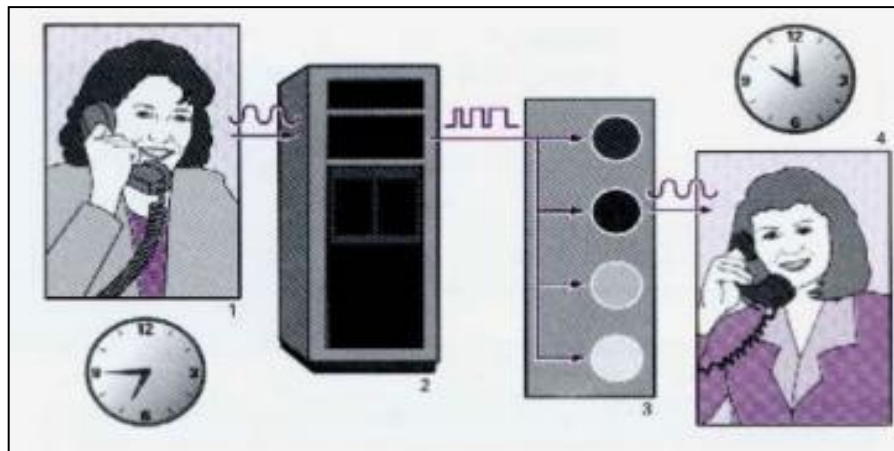
Task 4: Reading Video Conference.

Study the instructions for using video conference system, Try to find this information quickly.

1 What do this key do?

a {E}   b {L}   c {B}   d {H}

2 Which buttons so you use to:

a make a call?   c switch off the picture- in-picture?
b adjust the volume?   d zoom in the out the Near end Camera?
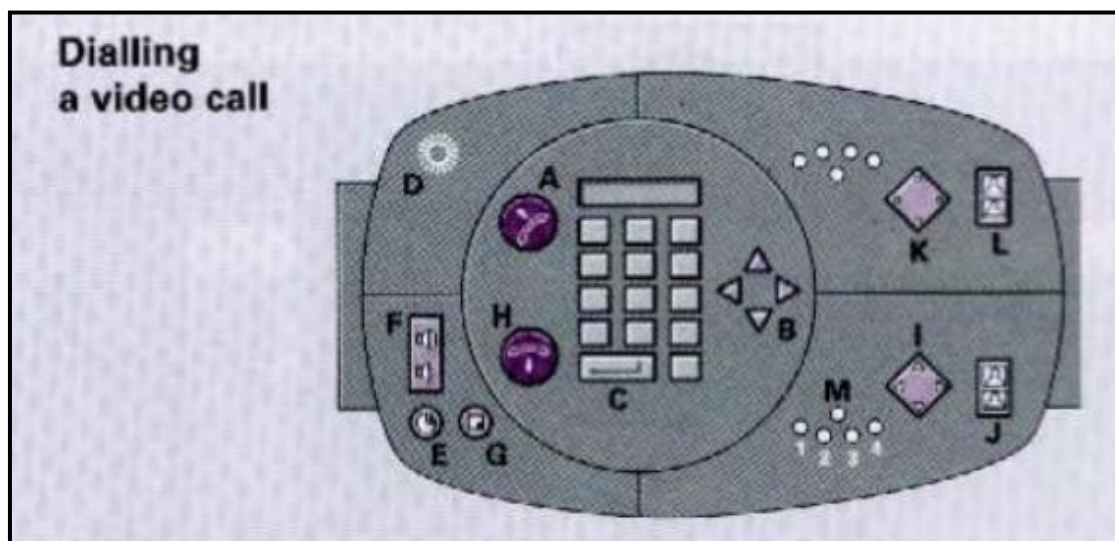
Ensure 'Picture Tel Ready' is displayed on the monitor.

Press the Call button (A). The monitor will prompt you to:

1 Make a manual call.

2 Re-dial the last video numbers.

3 Place a call from the speed dial menu.

To select a number from the speed dial list, use the direction key (B), then press Enter (C).

When the call has been successfully connected, you will see the far end location on the monitor.

Mute

On the left-hand side there is an audio mute key (E). When this is in operation, a banner will appear on your main monitor telling you that Near End, Far End, or both are on mute. Use the mute button if you want to have a private conversation.

Volume

To adjust the incoming volume, simply press the Volume key (F).

Picture-to-Picture

If you prefer not to see your own image, you can switch the P-I-P off using button (G).

Moving the Camera

The right-hand side of the keypad houses the Near End (I and J) and far End (K and L) camera controls. The diamond-shaped keys (I, K) control the direction of the camera and (J,L) the zoom in and out.

Ending your video conference

When your meeting is finished, remember to end the call by pressing the Hang Up key (H). It is preferable for the call originator to hung up.

Language work: Present Passive

Study these steps in using communications links to exchange data between San Francisco and Savannah. Georgia.

1   A police officer requests records of a suspect.
2   Her computer sends the message via lines and fiber-optic cable to a local microwave station.
3   The local microwave station transmits the request to the nearest earth satellite station.

Look at the active form the agent is as important as the action:

A police officer (= agent) requests (= action) records of a suspect.

If we want to make the action more important than the agent, or if it is very clear who or what the agent is. We can say:

Records of a suspect are requested.

This is the present passive form. We make this using is or are plus the ed form of the verb (requested, transmitted, relayed). With irregular verbs, we use the irregular past participle from (sent, given, and spoken).

Task 5: Fill in the gaps in these sentences. They describe how the police send a request from San Francisco to Savannah. Use the passive form of these verbs.

relay	request	send	transmit

1 Records of a suspect_____.
2 The message_____to a local microwave station.
3 The request_____to the nearest earth satellite station.
4 The message_____to a satellite in space.
5 The message_____back to an earth satellite station.
6 It_____to a microwave station.
7 It_____via the telephone lines to the headquarters computer.

Task 6: Now describe how the records are sent from Savannah to San Francisco.

Task 7: Works in Paris. Students in another country want to study the same computing course as yours without coming to your country. What communications links could your college or university use to make this possible?

LANGUAGES

Tuning-in

Task 1: Study these sample sections of programs. Rank them from 1 (easiest to understand) to 5 (most difficult to understand).

```
a   TABLE FILE SALES
    SUM UNITS BY MONTH BY CUSTOMER
    ON CUSTOMER SUBTOTAL PAGE  BREAK
    END

b   10101001  01000010  00010100
    11101110  11111111

c   REPORT THE BASE SALARIES
    BROKEN DOWN BY REGION
    FOR MANAGERS IN ENGLAND

d   mov ah, 3Dh
    mov al, 0
    push cs
    pop ds

e   A=0
    X=1
    INPUT Y
    FOR X=1 TO 3
    A=Y**X
    PRINT A
    NEXT X
    END
```

Task 2: Here is a list of language types used by programmers ranked from natural human at the top to machine code at the bottom. Can you match any of the samples in Task1 to this list?

1 Natural language	4 Assembly language
2 Very high-level languages	5 Machine code
3 High-level languages	

Reading Computing Language

Task 3: Work in group in three. Read two of the text about computing languages and make notes in the table on page 44. Then exchange information about other texts with other students in group.

C++ was developed from the C language. It was designed as a system programming language feathers that make it easy to control to computer hardware efficiency. It was used to produce the Microsoft Windows operating system. It is portable, i.e. programs written in C++ can be easily adapted for use on many different types of computer systems.

HTML stands for Hypertext Markup Language. It is a page description language used for creating web pages. HTNL uses a system tags to make page links and formatting. For example, the tag <u> tells the program to start underlining a text. Although programs cannot be created using HTML, small programs can be embedded in HTML code using a scripting language like JavaScript.

Java is a programming language originally designed for programming small electronic devices such as mobile phones. It can run unchanged on any operating system that has a Java Interpreter program. Java is used for writing programs for the World Wide Web.

JavaScript is a simplified form of the Java language. It is powerful and easy to use. Scripts are small programs that can be used to perform simple tasks or tie other programs together. JavaScript is designed for use inside webpages. It can enable webpage to respond to a mouse click or input on a form. It can also provide a way of moving through webpages and produce simple animation.

Visual Basic is a programming environment, not simply a language. It uses the Language BASIC, a simple language developed to make it easy for people to learn how to program. Visual basic has predefined objects such as dialog boxes, buttons, and text boxes which can be chosen from toolbox and dragged across the screen using the mouse and dropped into the required position. BASIC programming code attached to form a complete program. Visual basic is used to write general purpose applications for the Windows operating system.

Delphi is similar to Visual basic. It is also a programming environment for developing programs for the Windows operating system. It has predefined object that can be chosen from a toolbox. In Delphi, However, the code attached the objects is written in a form of Pascal. You can think of Delphi as a kind of Visual Pascal. Like Visual Basic, it is often used for general purpose programs.

Language	Associated language	Type of Language	Use
C++			
HTML			
Java			
JavaScript			
Visual Basic			
Delphi			

Task 4: Now read the texts again and answer these questions about special of the languages.

1   Which language uses a system of tags?
2   Which languages are designed to be used inside webpages?
3   Which language was used to write the Windows operating system?
4   What is a portable language?
5   Which language can have small programs embedded in it using JavaScript?
6   What does HTML stand for?
7   Which languages can only be used in the windows operating system?
8   Which language cannot be used for writing program?

Language work: Reporting screen messages

Study these examples of screen messages. Note how we report them.

Please enter a number.	***It requests you to*** *enter a number.*
Type 999 to indicate end of data.	***It tells you to*** *type 999 to indicate the end of the data.*
Do not attempt to log on.	***It tells you not to*** *attempt to log on.*
Printer out of paper.	***It informs you that*** *the printer is out of paper.*

Study these examples of screen messages. Note how we report them.

Do you want to exit (Y/N)?	***It asks you if*** *you want to exit.*
What is your password?	***It asks you what*** *your password is.*
How many copies do you want to print?	***It asks you how many*** *copies you want to print.*

Task 5: Report each of these screen massages.
1   Make sure printer is switched on before continuing.
2   System halted.
3   Press any key to continue.
4   Please type next number.
5   Do not proceed.
6   Please choose from menu below.
7   Non-system disk in drive a.
8   Paper jam.

CAREERS IN COMPUTING

Tuning-in

Task 1: Works in groups. List some of the jobs you know in computing. Compare your lists with others students in the class.

Task 2: Which of the jobs listed would you like to make your career? Explain why to others in your group.

Reading: Computing Jobs

Task 3: Work in groups of three. A, B and C. Read these descriptions of jobs in computing and make notes about the main responsibilities.

Example

System Analyst
Studies methods of working within an organization to decide how tasks can be done efficiency by computers. Makes a detailed analysis of the employer's requirements and work patterns to prepare a report on different options for using information technology. This may involve consideration of hardware as well as software. Eithers uses standard computer packages or writes a specification for programmers to adapt existing software or to prepare new software. May oversee the implementation and testing of a system and acts as a link between the user and the programmer.

Jobs	Main responsibility
System analyst	Studies employer's requirements and work patterns reports on different options. Writes specifications for programmers. Oversees implementation and testing.

Software Engineer/Designer
Produces the programs which control the internal operations of computers. Converts the system analyst's specification to a logical series steps. Translate these into the appropriate computer language. Often compiles programs from libraries or sub-programs, combining these to make up complete systems program. Designs tests, and improves programs for computers-aided design and manufacture, business applications, computer networks and games.

Computer Salesperson

Advises potential customers about available hardware and sells equipment to suit individual requirements. Discusses computing needs with the client to ensure that a suitable system can be supplied. Organize the sale and delivery and. If necessary, installation and testing. May arrange support or training, maintenance, and consultation. Must have sufficient technical knowledge.

Computer Systems Support Person

Systems support people are analyst programmers who are responsible for maintaining, updating and modifying the software used by a company. Some specialize in software which handles the basic operation of the computers. This involves the use of machine codes and specialized low-level computer languages. Most handle application software. May sort out problems encountered by users. Solving problems may involves amending an area of code in the software, retrieving files and data lost when system crashes, and basic knowledge of hardware.

Computer Systems Analyst Programmer

Creates the software programs used by computers. May specialize in the internal operating systems using low level computer language, or in applications programs. May specialize in one aspects of the work of the work e.g. programming, systems design, systems analysis or cover them all. May support the system through advice and training, providing user manual, and by helping users with any problems that arise.

Hardware Engineer

Researchers, designs and develop computers, or a parts of computers and the computerized elements of appliances, machine, and vehicles. Also involved in their manufacture, installation, and testing. May specialize in different areas, research and development, design, manufacturing. Has to be aware of cost, efficiency, safety and environmental factors, as well as engineering aspects.

Network Support Person

Maintains the link between PCs and workstations connected in a network. Uses telecommunications, software, and electronic skills, and knowledge of the networking software to locate and correct faults. This may involve work to controlling software, on the wiring, printed circuit boards, software or microchips on a file server, or on cables either within or outside the building.

Task 4: Exchange information with other students in your group.

Language Work

Study some of requirements for the job of Computer Network Support Person.

Essential

1   Diploma in computing or telecommunications engineering
2   Good communication skills to discuss requirement with users
3   Deductive ability for analyzing faults
4   Able to work quickly under pressure
5   Normal color vision to follow color-coding wires

Desirable

6   Interest in technology to keep up with new developments
7   Physically fit for lifting, carrying and bending

We can describe the essential requirements like this.

> They **_must have_** a diploma in computing or telecommunications engineering.
> They **_must have_** normal color vision.

We can describe the desirable requirements like this.

> They **_should have_** an interest in technology.
> They **_should be_** physically fit.

Task 5: Study these requirements for a Computer Technical Salesperson. Decide which are essential and which are desirable. Then descript each requirement using must have/ be or should have/be.

1   a certificate or diploma in computing
2   experience in the computer industry
3   able to put technical ideas into everyday language
4   able to persuade and negotiate
5   a qualification in marketing
6   a thorough understanding of the product
7   a driving license
8   A high level of communication skills
9   patient, persistent and diplomatic
10   able to work away from home
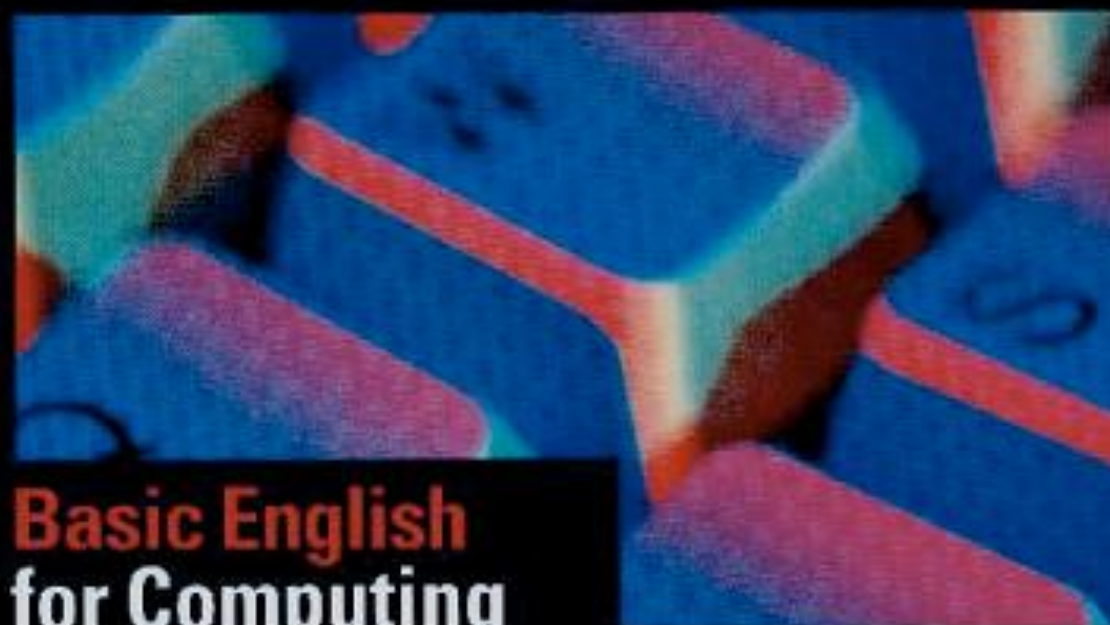
Basic English for Computing

This course is intended for both students of computing and those working in the computing sector. It is suitable for learners at elementary to pre-intermediate level who need to upgrade their knowledge of English in a professional context. It is designed for use in universities, colleges, and technical schools, and on company training programmes.

Student's Book
There are twenty-eight topic-based units covering a range of key areas from computer uses and applications, through input and output devices, networks, the Internet, multimedia, programming, and work issues through to future trends in the computing sector. Six additional 'interview' units focus on six different jobs in the sector, from computing student to systems manager. Key language and vocabulary are presented via a range of authentic contexts. The course aims to develop all four skills, with special emphasis on those which will be of practical use in professional situations.

Cassette
The cassette includes the dialogues and listening passages from all the units.

Teacher's Book
The Teacher's Book contains unit-by-unit teaching notes including a technical introduction to each topic, answers to the tasks and exercises, and the tapescripts of all listening tasks.

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