

**CAMBRIDGE**

**Professional English**

# Infotech

## English for computer users

**Fourth Edition**

**Student's Book**

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Fully updated with the  
latest advances in  
technology




## 1 The digital age

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

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



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

**C** Read the text and check your answers to B.

### The digital age

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

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

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

20 Mobiles let you **make** voice **calls**, **send texts**, email people and download logos, ringtones or games. With a built-in camera you can send pictures and make video calls in *face-to-face* mode. New smartphones combine a telephone with web access, 25 video, a games console, an MP3 player, a personal digital assistant (PDA) and a GPS navigation system, all in one.

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

35 card to pay for goods and services. Instead of using a signature to verify payments, customers are asked to **enter a four-digit personal identification number (PIN)**, the same number used at cashpoints; this system makes transactions more secure. With online banking, clients can easily **pay bills** and **transfer money** from the comfort of their homes. 40

Airline pilots use computers to help them control the plane. For example, monitors **display data** about fuel consumption and weather conditions. In airport control towers, computers are used to 45 manage radar systems and regulate air traffic. On the ground, airlines are connected to travel agencies by computer. Travel agents use computers to find out about the availability of flights, prices, times, stopovers and many other details.

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

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

- 1 perform (line 6) \_\_\_\_\_
- 2 word processor (line 13) \_\_\_\_\_
- 3 online (line 16) \_\_\_\_\_
- 4 download (line 18) \_\_\_\_\_
- 6 built-in (line 21) \_\_\_\_\_

- 5 digital (line 25) \_\_\_\_\_
- 7 store (line 27) \_\_\_\_\_
- 8 financial (line 29) \_\_\_\_\_
- 9 monitor (line 42) \_\_\_\_\_
- 10 data (line 42) \_\_\_\_\_

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

- a keep, save \_\_\_\_\_
- b execute, do \_\_\_\_\_
- c monetary \_\_\_\_\_
- d screen \_\_\_\_\_
- e integrated \_\_\_\_\_
- f connected to the Internet \_\_\_\_\_

- g collection of facts or figures \_\_\_\_\_
- h describes information that is recorded or broadcast using computers \_\_\_\_\_
- i program used for text manipulation \_\_\_\_\_
- j copy files from a server to your PC or mobile \_\_\_\_\_

**F**  In pairs, discuss these questions.

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



## 2 Language work: collocations 1

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

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

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


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

### HELP box


#### Collocations 1

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


## 3 Computers at work

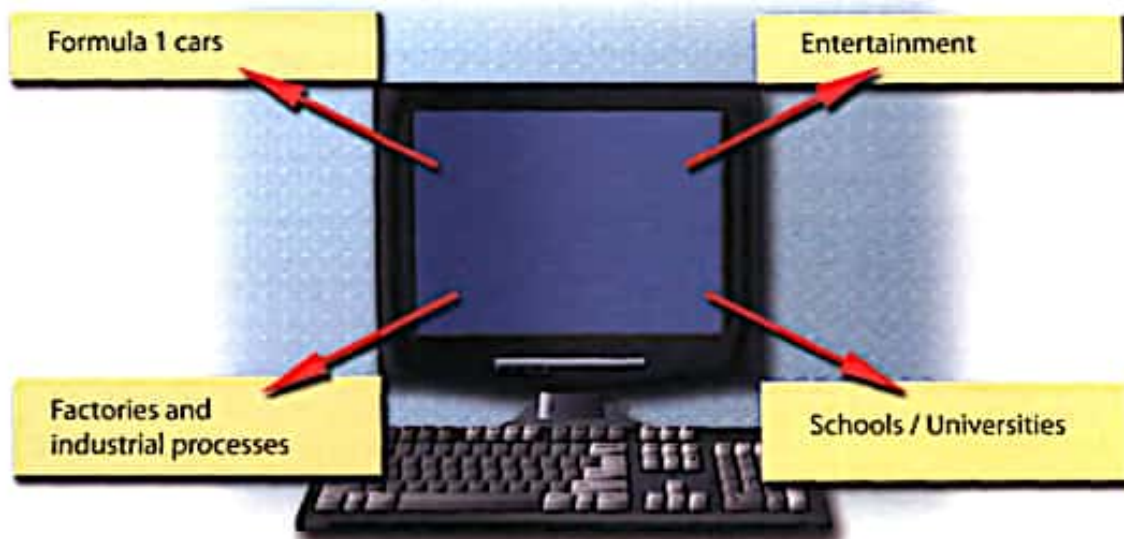
**A**  Listen to four people talking about how they use computers at work. Write each speaker's job in the table.

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

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

## 5 Other applications

**A**  In small groups, choose one of the areas in the diagram below and discuss what you can do with computers in that area. Look at the *Useful language* box below to help you.



### Useful language

**Formula 1 cars:** design and build the car, test virtual models, control electronic components, monitor engine speed, store (vital) information, display data, analyse and communicate data

**Entertainment:** download music, burn CDs, play games, take photos, edit photos, make video clips, watch movies on a DVD player, watch TV on the computer, listen to MP3s, listen to the radio via the Web

**Factories and industrial processes:** design products, do calculations, control industrial robots, control assembly lines, keep record of stocks (materials and equipment)

**School/University:** access the Internet, enrol online, search the Web, prepare exams, write documents, complete exercises online, do research, prepare presentations

Computers are used to ...

A PC can also be used for ...

People use computers to ...

**B**  Write a short presentation summarizing your discussion. Then ask one person from your group to give a summary of the group's ideas to the rest of the class.



# 1 Computer hardware

**A**  In pairs, discuss these questions.

- 1 Have you got a computer at home, school or work? What kind is it?
- 2 How often do you use it? What do you use it for?
- 3 What are the main components and features of your computer system?

**B** In pairs, label the elements of this computer system.



**C** Read these advertising slogans and say which computer element each pair refers to.

<p><b>1</b></p> <p>a Point and click here for power</p> <p>b Obeys every impulse as if it were an extension of your hand</p>	<p><b>2</b></p> <p>a Displays your ideas with perfect brilliance</p> <p>b See the difference – sharp images and a fantastic range of colours</p>	<p><b>3</b></p> <p>a It's quiet and fast</p> <p>b ... it's easy to back up your data before it's too late</p>	<p><b>4</b></p> <p>a Power and speed on the inside</p> <p>b Let your computer's brain do the work</p>
<p><b>5</b></p> <p>a ... a big impact on the production of text and graphics</p> <p>b Just what you need: a laser powerhouse</p>			

**D** Find words in the slogans with the following meanings.

- 1 to press the mouse button \_\_\_\_\_
- 2 clear; easy to see \_\_\_\_\_
- 3 to make an extra copy of something \_\_\_\_\_
- 4 selection \_\_\_\_\_
- 5 shows \_\_\_\_\_

## 2 What is a computer?

**A** Read the text and then explain Fig. 1 in your own words.

### What is a computer?

A computer is an electronic machine which can accept data in a certain form, process the data, and give the results of the processing in a specified format as information.

First, data is fed into the computer's memory. Then, when the program is run, the computer performs a set of instructions and processes the data. Finally, we can see the results (the output) on the screen or in printed form (see Fig. 1 below).

A computer system consists of two parts: hardware and software. **Hardware** is any electronic or mechanical part you can see or touch. **Software** is a set of instructions, called a program, which tells the computer what to do. There are three basic hardware sections: the **central processing unit (CPU)**, **main memory** and **peripherals**.

Perhaps the most influential component is the central processing unit. Its function is to execute program instructions and coordinate the activities of all the other units. In a way, it is the 'brain' of the computer. The main memory (a collection of RAM chips) holds the instructions and data which are being processed by the CPU. Peripherals are the physical units attached to the computer. They include storage devices and input/output devices.

**Storage devices** (hard drives, DVD drives or flash drives) provide a permanent storage of both data and programs.

**Disk drives** are used to read and write data on disks.

**Input devices** enable data to go into the computer's memory. The most common input devices are the **mouse** and the **keyboard**. **Output devices** enable us to extract the finished product from the system. For example, the computer shows the output on the **monitor** or prints the results onto paper by means of a **printer**.

On the rear panel of the computer there are several **ports** into which we can plug a wide range of peripherals – a modem, a digital camera, a scanner, etc. They allow communication between the computer and the devices. Modern desktop PCs have USB ports and memory card readers on the front panel.



A USB port



A USB connector

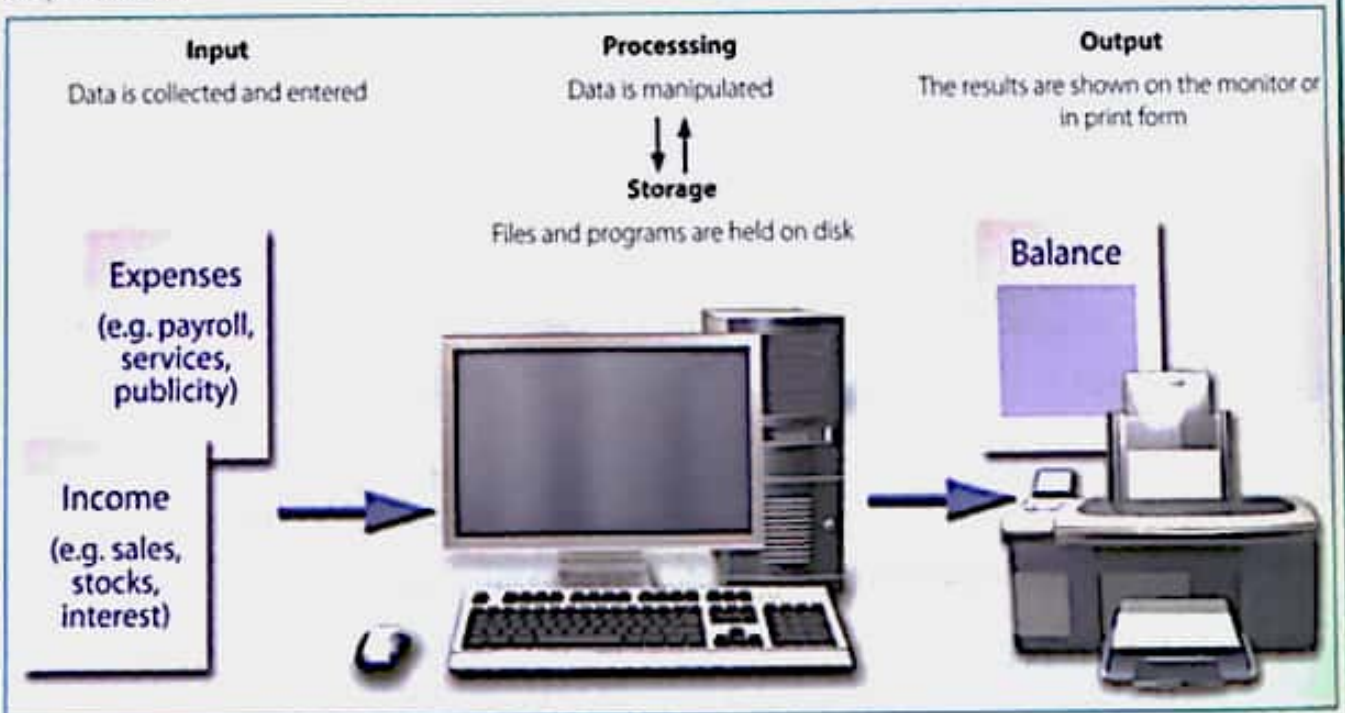



Fig. 1



**B Match these words from the text (1–9) with the correct meanings (a–i).**

- |  |   |
|--|---|
| 1 software                             | a the brain of the computer   |
| 2 peripherals                          | b physical parts that make up a computer system                             |
| 3 main memory                          | c programs which can be used on a particular computer system                |
| 4 hard drive (also known as hard disk) | d the information which is presented to the computer                        |
| 5 hardware                             | e results produced by a computer  |
| 6 input                                | f input devices attached to the CPU   |
| 7 ports                                | g section that holds programs and data while they are executed or processed |
| 8 output                               | h magnetic device used to store information                                 |
| 9 central processing unit (CPU)        | i sockets into which an external device may be connected                    |

**3 Different types of computer**

**A**  Listen to an extract from an ICT class. As you listen, label the pictures (a–e) with words from the box.

laptop

desktop PC

PDA

mainframe

tablet PC



a



b



c



d



e

**B**  Listen again and decide whether these sentences are true or false. Correct the false ones.


- 1 A mainframe computer is less powerful than a PC.
- 2 A mainframe is used by large organizations that need to process enormous amounts of data.
- 3 The most suitable computers for home use are desktop PCs.
- 4 A laptop is not portable.
- 5 Laptops are not as powerful as desktop PCs.
- 6 Using a stylus, you can write directly onto the screen of a tablet PC.
- 7 A Personal Digital Assistant is small enough to fit into the palm of your hand.
- 8 A PDA does not allow you to surf the Web.



## 4 Language work: classifying

**A** Look at the HELP box and then use suitable classifying expressions to complete these sentences.

- 1 A computer \_\_\_\_\_ hardware and software.
- 2 Peripherals \_\_\_\_\_ three types: input, output and storage devices.
- 3 A word processing program \_\_\_\_\_ software which lets the user create and edit text.
- 4 \_\_\_\_\_ of network architecture: peer-to-peer, where all computers have the same capabilities, and client-server (e.g. the Internet), where servers store and distribute data, and clients access this data.

**B**  In pairs, describe this diagram, using classifying expressions from the HELP box. Make reference to your own devices.

### HELP box

#### Classifying

Classifying means putting things into groups or classes. We can classify types of computers, parts of a PC, etc. Some typical expressions for classifying are:

- ... are classified into X types/categories
- ... are classified by ...
- ... can be divided into X types/categories

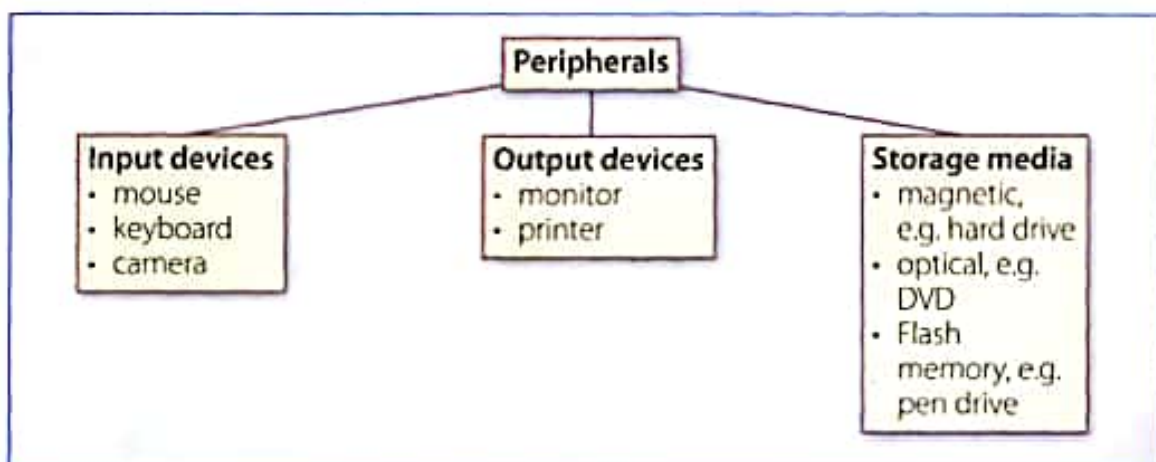
Digital computers can be **divided into** five main **types**: mainframes, desktop PCs, laptops, tablet PCs and handheld PDAs.

- ... include(s) ...
- ... consist(s) of ...


The basic configuration of a mainframe **consists of** a central system which processes immense amounts of data very quickly.

- There are X types/classes of ...
- X is a type of ...

A tablet PC is **a type of** notebook computer.



## 5 Benefits of laptops and tablet PCs

 Your school is considering buying tablet PCs to use in the classroom. Write an email to your teacher explaining the benefits for the students and the school.

or

Your company is considering replacing all of the office PCs with laptops. Write an email to your boss explaining the benefits for the employees and the company.

## 1 Technical specifications

**A** Read the advertisement and translate the technical specifications into your own language.

### Dell Inspiron 9200

- Intel Core 2 Duo processor at 2.4GHz
- 2048MB RAM, expandable to 4GB
- 500GB hard drive
- Comes with Windows Vista Home Premium



**B** In pairs, answer these questions. If necessary, look at the Glossary.

- 1 What is the main function of a computer's processor?
- 2 What unit of frequency is used to measure processor speed?
- 3 What does RAM stand for?

## 2 What is inside a PC system?

**A** Read the text on page 12 and then answer these questions.

- 1 What are the main parts of the CPU?
- 2 What does ALU stand for? What does it do?
- 3 What is the function of the system clock?
- 4 How much is one gigahertz?
- 5 What type of memory is temporary?
- 6 What type of memory is permanent and includes instructions needed by the CPU?
- 7 How can RAM be increased?
- 8 What term is used to refer to the main printed circuit board?
- 9 What is a *bus*?
- 10 What is the benefit of having expansion slots?

**B** Look at these extracts from the text. What do the words in bold refer to?

- 1 **This** is built into a single chip. (line 2)
- 2 ... **which** executes program instructions and coordinates ... (line 3)
- 3 ... **that** is being executed. (line 22)
- 4 ... performance of a computer is partly determined by the speed of **its** processor. (line 25)
- 5 ... the CPU looks for **it** on the hard disk ... (line 35)
- 6 ... inside the computer to communicate with **each other**. (line 52)



# What is inside a PC system?

## Processing

The nerve centre of a PC is the **processor**, also called the **CPU**, or **central processing unit**. This is built into a single **chip** which executes program instructions and coordinates the activities that take place within the computer system. The chip itself is a small piece of silicon with a complex electrical circuit called an **integrated circuit**.

The processor consists of three main parts:

- The **control unit** examines the instructions in the user's program, interprets each instruction and causes the circuits and the rest of the components – monitor, disk drives, etc. – to execute the functions specified.
- The **arithmetic logic unit (ALU)** performs mathematical calculations (+, -, etc.) and logical operations (AND, OR, NOT).
- The **registers** are high-speed units of memory used to store and control data. One of the registers (the program counter, or PC) keeps track of the next instruction to be performed in the main memory. The other (the instruction register, or IR) holds the instruction that is being executed (see Fig. 1 on page 13).

The power and performance of a computer is partly determined by the speed of its processor. A **system clock** sends out signals at fixed intervals to measure and synchronize the flow of data. **Clock speed** is measured in **gigahertz (GHz)**. For example, a CPU running at 4GHz (four thousand million hertz, or cycles, per second) will enable your PC to handle the most demanding applications.



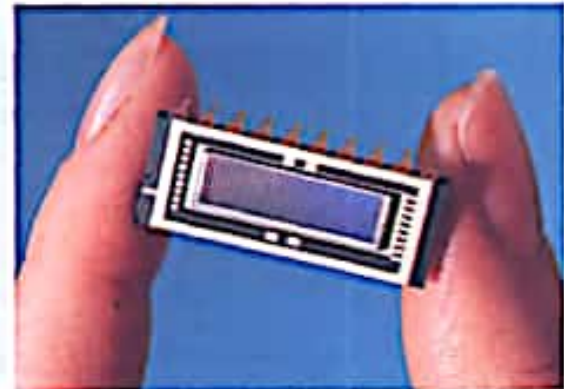
The Intel Core 2 Duo processor; other chip manufacturers are AMD and Motorola

## RAM and ROM

The programs and data which pass through the processor must be loaded into the main memory in order to be processed. Therefore, when the user runs a program, the CPU looks for it on the hard disk and transfers a copy into the **RAM** chips. **RAM (random access memory)** is volatile – that is, its information is lost when the computer is turned off. However,

**ROM (read only memory)** is non-volatile, containing instructions and routines for the basic operations of the CPU. The **BIOS (basic input/output system)** uses ROM to control communication with peripherals.

RAM capacity can be expanded by adding extra chips, usually contained in small circuit boards called **dual in-line memory modules (DIMMs)**.

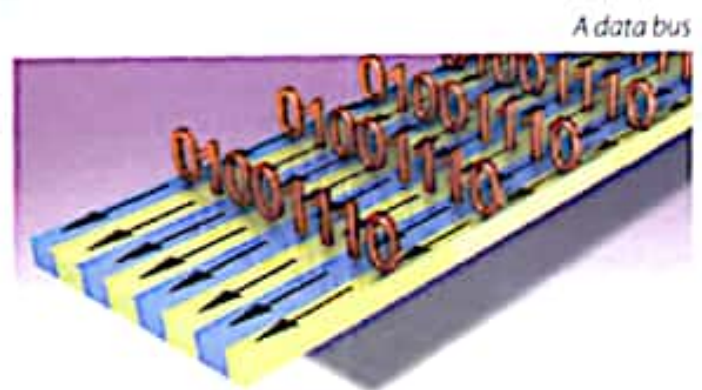


A RAM chip

## Buses and cards

The main circuit board inside your system is called the **motherboard** and contains the processor, the memory chips, expansions slots, and controllers for peripherals, connected by **buses** – electrical channels which allow devices inside the computer to communicate with each other. For example, the front side bus carries all data that passes from the CPU to other devices.

- 55 The size of a bus, called **bus width**, determines how much data can be transmitted. It can be compared to the number of lanes on a motorway – the larger the width, the more data can travel along the bus. For example, a 64-bit bus can transmit 64 bits of data.
- 60 **Expansion slots** allow users to install **expansion cards**, adding features like sound, memory and network capabilities.



A data bus

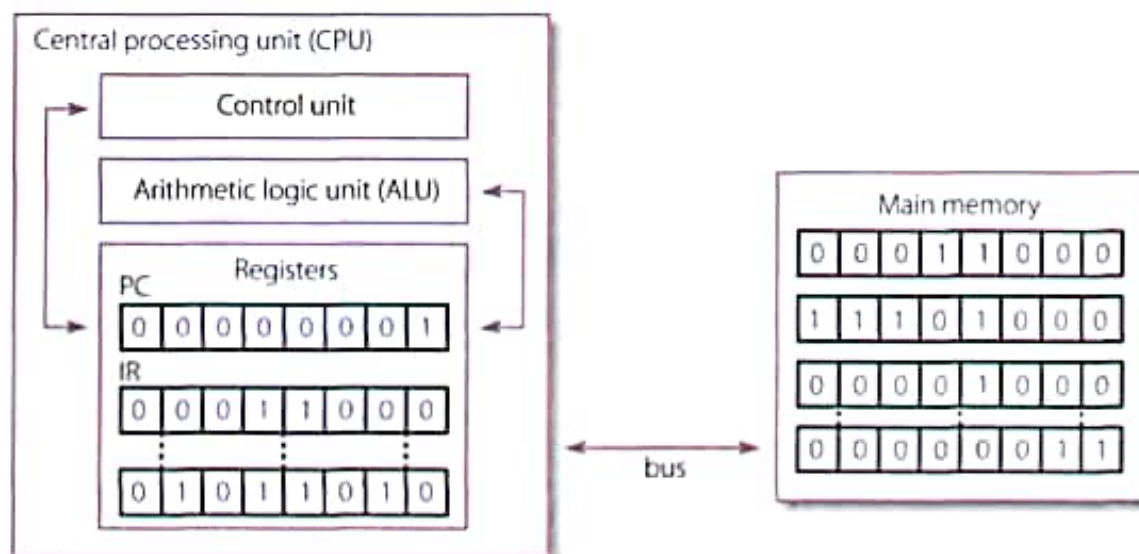


Fig. 1: Organization of a simple computer; the CPU is built into a single microprocessor chip

### 3 Language work: defining relative clauses

Look at the **HELP box** and then complete the sentences below with suitable relative pronouns. Give alternative options if possible. Put brackets round the relative pronouns you can leave out.

- 1 That's the computer \_\_\_\_\_ I'd like to buy.
- 2 Core 2 Duo is a new Intel processor \_\_\_\_\_ contains about 291 million transistors.
- 3 A webmaster is a person \_\_\_\_\_ designs, develops and maintains a website.
- 4 A bus is an electronic pathway \_\_\_\_\_ carries signals between computer devices.
- 5 Here's the DVD \_\_\_\_\_ you lent me!
- 6 Last night I met someone \_\_\_\_\_ works for GM as a software engineer.

#### HELP box

##### Defining relative clauses

- We can define people or things with a defining (restrictive) relative clause. We use the relative pronoun **who** to refer to a person; we can also use **that**.

*A blogger is a person **who/that** keeps a web log (blog) or publishes an online diary.*

- We use the relative pronoun **which** (or **that**) to refer to a thing, not a person.

*This is built into a single chip **which/that** executes program instructions and coordinates the activities that take place within the computer system.*

- Relative pronouns can be left out when they are the object of the relative clause.

*The main circuit board (**which/that**) you have inside your system is called the motherboard ...*



## 4 How memory is measured

### A Read the text and then answer these questions.

- 1 How many digits does a binary system use?
- 2 What is a *bit*?
- 3 What is a collection of eight bits called?
- 4 What does ASCII stand for?
- 5 What is the purpose of ASCII?

### Bits and bytes

Computers do all calculations using a code made of just two numbers – 0 and 1. This system is called **binary code**. The electronic circuits in a digital computer detect the difference between two states: ON (the current passes through) or OFF (the current doesn't pass through) and represent these states as 1 or 0. Each 1 or 0 is called a **binary digit**, or **bit**.

Bits are grouped into eight-digit codes that typically represent characters (letters, numbers and symbols). Eight bits together are called a **byte**. Thus, each character on a keyboard has its own arrangement of eight bits. For example, 01000001 for the letter A, 01000010 for B, and 01000011 for C.

One bit

01000011

Example of a byte

Unit of memory	Abbreviation	Exact memory amount
Binary digit	bit, b	1 or 0
Byte	B	8 bits
Kilobyte	KB or K	1,024 bytes ( $2^{10}$ )
Megabyte	MB	1,024 KB, or 1,048,576 bytes ( $2^{20}$ )
Gigabyte	GB	1,024 MB, or 1,073,741,824 bytes ( $2^{30}$ )
Terabyte	TB	1,024 GB, or 1,099,511,627,776 bytes ( $2^{40}$ )



Computers use a standard code for the binary representation of characters. This is the American Standard Code for Information Interchange, or **ASCII** – pronounced /æski/. In order to avoid complex calculations of bytes, we use bigger units such as kilobytes, megabytes and gigabytes.

We use these units to describe the RAM memory, the storage capacity of disks and the size of a program or document.

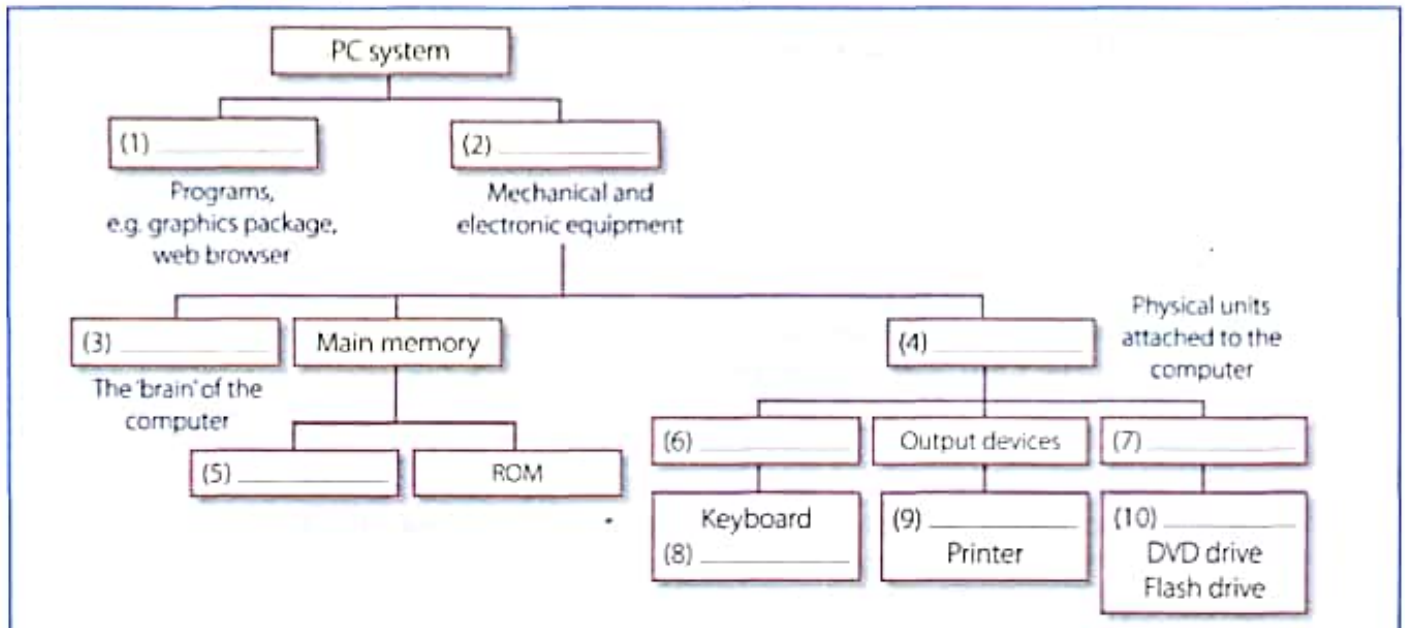
**Note:** **bit** is pronounced /bit/; **byte** is pronounced /bait/

### B Complete these descriptions with the correct unit of memory.

- 1 A \_\_\_\_\_ is about one trillion bytes – about as much text as the books and magazines in a huge library.
- 2 A \_\_\_\_\_ is about one million bytes – about as much text as a 300-page novel.
- 3 A \_\_\_\_\_ is about one thousand bytes – equivalent to one sheet of A4.
- 4 A \_\_\_\_\_ is about one billion bytes – about as much text as 1,000 books.
- 5 A \_\_\_\_\_ can store a single character, such as the letter *h* or number 7.

## 5 A PC system

**A** Complete this diagram of a PC system. Look at Units 1, 2 and 3 to help you.



**B** In pairs, compare your answers.

**C**  Listen to a teacher explaining the diagram to her class and check your answers.

## 6 Your ideal computer system

**A** Make notes about the features of the computer that you would most like to have. Think about the features in the box.

CPU   Speed   Optical disc drives   Wireless connectivity   Minimum/maximum RAM  
Monitor   Ports and card memory slots   Hard disk   Software

**B**  In pairs, describe your ideal computer system. Give reasons for your choices.

### Useful language

*It's got ...*

*It's very fast. It runs at ...*

*The standard RAM memory is ... and it's expandable ...*


*The hard disk can hold ...*


*I need a large, flat LCD screen because ...*

*As for the Internet, ...*



## 1 In a computer shop

**A**  Imagine you are in a computer shop. Choose five things that would improve your digital life. In pairs, compare your choices.

**B**  You want to buy a computer. Think of three basic features that will make a big difference to your choice. In pairs, compare your choices.

**C**  Listen to two people making enquiries in a computer shop. Do they buy anything?

**D**  Listen again and complete the product descriptions.



### iMac

Processor speed 2.33GHz

RAM \_\_\_\_\_

Hard drive capacity \_\_\_\_\_

DVD drive included? Yes

Operating system \_\_\_\_\_

Includes internet software

Price \_\_\_\_\_



### MacBook

Processor speed \_\_\_\_\_

RAM \_\_\_\_\_

Hard drive capacity \_\_\_\_\_

DVD drive included? \_\_\_\_\_

Operating system \_\_\_\_\_

Includes internet software

Price £1,029



## E Listen again and complete the extract from the conversation.

**Assistant:** Do you need any (1) \_\_\_\_\_ ?

**Paul:** Um, yes, we're looking for a Mac computer. Have you got any fairly basic ones?

**Assistant:** Yes, sure. If you'd like to come over here.

**Paul:** What different (2) \_\_\_\_\_ are there?

**Assistant:** At the moment we've got these two models: the iMac, which is a desktop computer with an Intel Core 2 Duo processor (3) \_\_\_\_\_ at 2.33 gigahertz, and the portable MacBook, which has a processor (4) \_\_\_\_\_ at 2.0 gigahertz. Core Duo technology actually means two cores, or processors, built into a single chip, offering up to twice the speed of a traditional chip.

**Sue:** So they're both very (5) \_\_\_\_\_, then. And which one has more memory? I mean, which has more RAM?

**Assistant:** Well, the iMac has two gigabytes of RAM, which can be (6) \_\_\_\_\_ up to three gigabytes, and the MacBook has one gigabyte, expandable to two gigabytes. It all depends on your needs. The iMac is (7) \_\_\_\_\_ for home users and small offices. The MacBook is more (8) \_\_\_\_\_ if you travel a lot.

## 2 Language functions in a computer shop

Look at the language functions in the HELP box and then correct one mistake in each of these sentences. Decide which functions are being expressed in each sentence.

- 1 The Ulysses SD is a power, expandable computer that offers high-end graphics at a low price.
- 2 A laptop is likely to be more expensive than the equivalent desktop, but a laptop is less practical if you travel a lot.
- 3 Where's the storage capacity of the hard drive?
- 4 I'm looking a desktop PC that has good graphics for games.
- 5 Do you need the help?
- 6 And how many does the PDA cost?
- 7 This workstation is a Pentium processor with dual-core technology, 1,024 gigabytes of RAM, and 1 terabyte of disk space.

### HELP box

#### Language functions useful to a sales assistant


- Greeting and offering help  
*Good morning. Do you need any help?*
- Giving technical specifications (specs)  
*The MacBook has a processor running at 2.0 gigahertz.*  
*The iMac has two gigabytes of RAM.*  
*They feature a camera built into the display.*
- Describing  
*Both computers are very fast and reliable.*
- Comparing  
*The MacBook is more practical if you travel a lot.*  
*PDA's are cheaper than laptops but laptops are more powerful.*

#### Language functions useful to a customer

- Explaining what you are looking for  
*We're looking for a personal computer. Have you got any fairly basic ones?*
- Asking for technical specs  
*What's the storage capacity of the hard drive?*  
*Do they have a DVD drive?*
- Asking the price  
*How much do they cost?*  
*How much is it?*



### 3 Role play – buying a computer

 **Work in pairs. One of you wants to buy a computer, the other is the shop assistant. Use the prompts and product descriptions below to role play the conversation.**

#### Shop assistant

Greet the customer and offer help.

Show the customer two possible models.

Give technical specs (describe the processor, RAM and storage capacity). Compare the two different models.

Give the information required. Compare the two models.

Answer, and mention any final details that might persuade the customer to buy the computer.

#### Customer

Explain what you are looking for.

Ask for some technical specs.

Ask about any further technical specs (DVD drive, monitor, communications, etc.).

Ask the price.

Decide which computer to buy or leave the shop.

#### Toshiba Satellite

**laptop**

2.0GHz Core 2 Duo processor  
2GB RAM expandable to 4GB  
160GB hard drive  
Super Multi drive (double layer)  
15.4" wide XGA display  
Wireless LAN, Wi-Fi compliancy

**£1,099**

#### Dell desktop PC

AMD Athlon at 2.4GHz  
1GB RAM expandable to 4GB  
320GB hard drive  
DVD+/-RW drive  
17" LCD monitor


**£680**

#### Palm TX handheld

Intel 312MHz ARM-based processor  
128 MB Flash memory (non-volatile)  
Support for memory cards  
320x480 TFT touch screen  
Wi-Fi and Bluetooth  
Lithium-ion battery

**£216**

### 4 Choosing the right computer

**A**  **Listen to four people talking about their computer needs and take notes. In pairs, read the descriptions from the computer shop website and choose the most suitable computer for each person. Give reasons for your choices.**

Speaker 1 \_\_\_\_\_ Speaker 3 \_\_\_\_\_

Speaker 2 \_\_\_\_\_ Speaker 4 \_\_\_\_\_



#### Sun workstation

Two AMD Opteron processors at 3.0GHz  
4GB RAM, 32GB maximum  
1 terabyte hard drive and dual DVD drive  
19" Sun TFT flat-panel LCD  
Supports several graphics formats  
Allows you to handle your toughest technical, scientific, and business-critical applications  
Supports Solaris, Windows and Linux  
**£3,249**

**Gateway C-120 convertible notebook**

Intel Core 2 Duo ULV processor at 1.06GHz  
 12.1" WXGA TFT touch screen  
 Gateway Executive stylus pen  
 1024MB DDR2 SDRAM  
 80GB serial ATA hard drive  
 DVD-ROM drive (optical DVD burner)  
 Integrated modem and Bluetooth  
 Windows Vista Home Premium  
 Thin and lightweight (1.17", 2.4 kg)


**£805****Sony Vaio AR laptop (VGN-AR51E)**

Intel Core 2 Duo Processor at 2GHz  
 2GB DDR2 SDRAM  
 200GB hard drive  
 DVD+/-RW optical drive  
 17" WXGA high-definition LCD screen  
 Memory Stick slot  
 Three USB 2.0 ports  
 Integrated wireless LAN  
 Built-in 'Motion Eye' digital camera  
 Lithium-ion battery  
 Windows Vista Ultimate

**£899****Dell Inspiron 531 desktop PC**

AMD Athlon 64 X2 Dual Core Processor  
 3072MB DDR2 SDRAM  
 Dell 22" Wide Flat Panel  
 256MB NVIDIA GeForce 8600GT video card  
 1.0TB Hard Drive  
 16x DVD+/- RW Drive  
 Integrated 7.1 Channel High Definition Audio  
 Windows Vista Home Premium  
 Optional features: Windows Media Center, integrated TV Tuner, and a Blu-ray disc drive for high-definition content

**From £849**

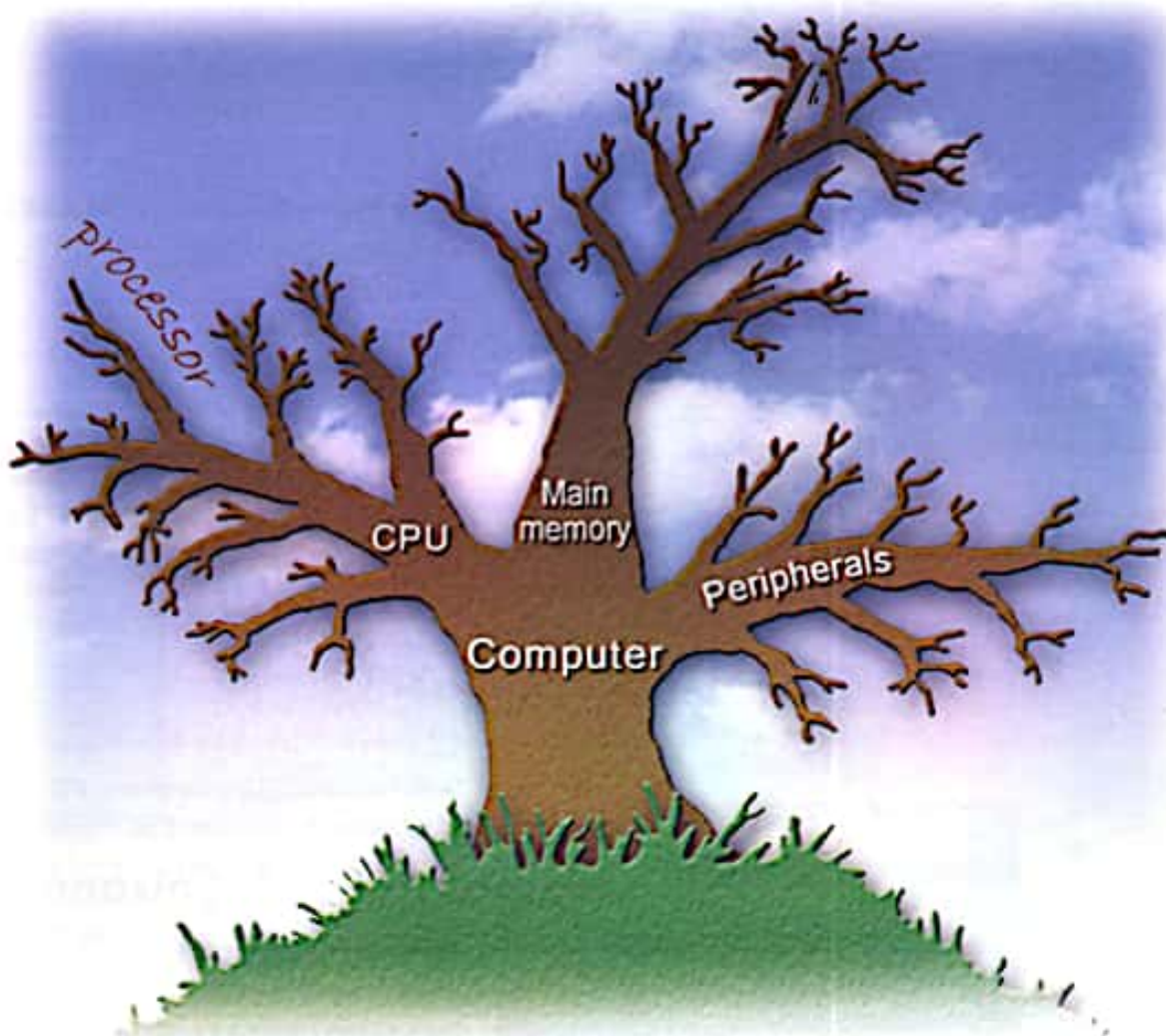
**B**  Look at the notes you made about your ideal computer system in Unit 3 task 6 (page 15). What did you want? Look again at the descriptions of the computers above and choose the one that is closest to your ideal. In pairs, discuss your choices.



## 5 Vocabulary tree

Designing word trees and spidergrams can help you build up your own mental 'maps' of vocabulary areas. Look at the list of terms in the box and put each one in an appropriate place on the word tree below. The first one has been done for you.

processor	ROM	expandable memory	ALU	DIMMs	hard drive
RAM	computer brain	byte	DVD	system clock	keyboard
mouse	gigahertz	printer	megabyte	webcam	registers



## 6 Recommending a computer



A friend has asked you to recommend a computer that suits his needs. He needs to be able to access the Internet, play games and work with graphics, music and video files. Write an email describing its technical features and saying why you recommend it.



Now visit [www.cambridge.org/elt/lct](http://www.cambridge.org/elt/lct) for an online task.