

## UNIT 2

### Computer Architecture



Picture 2.1

#### Learning Outcomes:

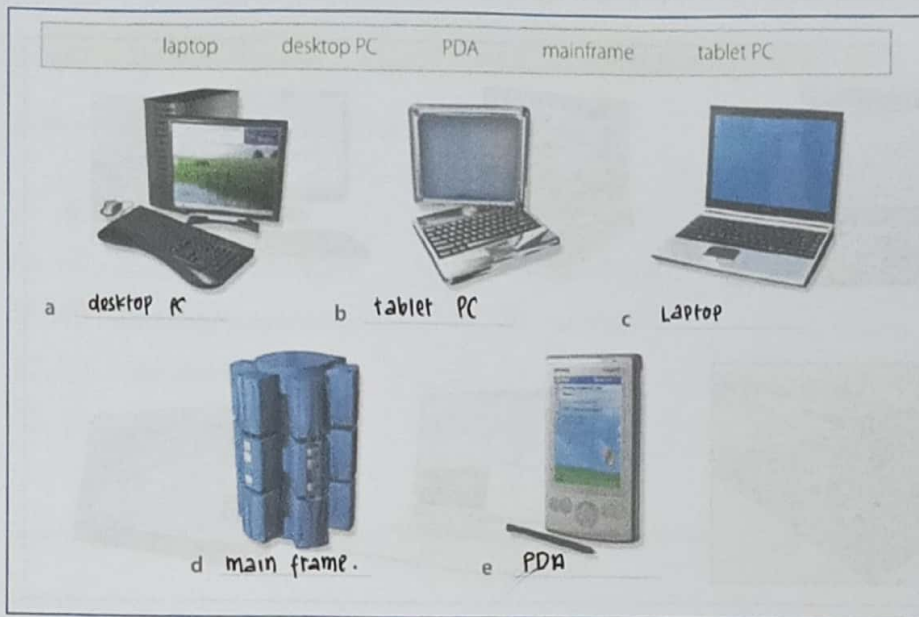
By the end of the lesson, the students are expected to be able to use appropriate English to:

- identify and describe kinds of computer
- read a computer advertisement
- identify parts of computer
- describe functions of parts of computer
- identify comparatives and superlatives
- identify phrases used for presentation
- perform a presentation using phrases explained
- compare and contrast computers and any other devices using comparative and superlatives

## 2.1. Reading a computer advertisement

**Exercise 1:** You are going to listen to an extract from an ICT class about **five** types of computer.

As you listen, identify the pictures (a-e) with words from the box.



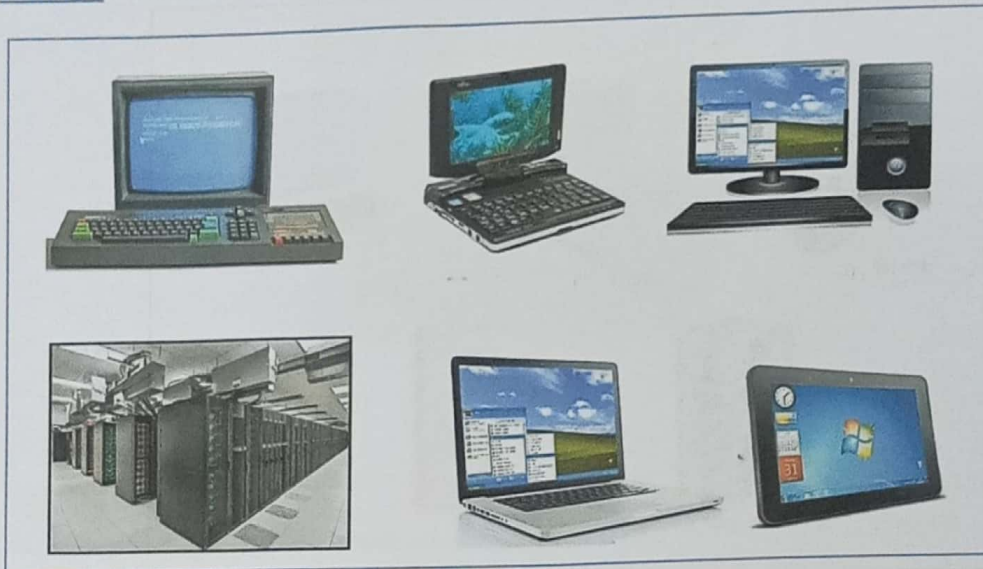
Picture 2.2

**Exercise 2:** 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. (T/~~F~~)
2. A mainframe is used by large organizations that need to process enormous amounts of data. (~~T~~/F)
3. The most suitable computers for home use are desktop PC. (~~T~~/F)
4. A laptop is not portable. (T/~~F~~)
5. Laptops are not as powerful as desktop PCs. (~~T~~/F)
6. Using a stylus, you can write directly onto the screen of a tablet PC. (~~T~~/F)

7. A Personal Digital Assistant is small enough to fit into the palm of your hand. (T/F)
8. A PDA does not allow you to surf the Web. (T/F)

**Exercise 3:** Match these names to the different types of computer.



Picture 2.3

- |                 |                  |                            |
|-----------------|------------------|----------------------------|
| 1. minicomputer | 3. tablet        | 5. PC                      |
| 2. laptop       | 4. microcomputer | 6. supercomputer/mainframe |

**Exercise 4:** Listen to Part 1 of the conversation between a shop assistant and a customer. Tick

(✓) the correct answers to the questions below.

1. The customer wants a computer for.....

☒ writing

☒ internet

☒ games

☐ graphics

☐ video



2. A multimedia computer provides.....

- |                                              |                                           |
|----------------------------------------------|-------------------------------------------|
| <input checked="" type="checkbox"/> sound    | <input type="checkbox"/> telephone        |
| <input checked="" type="checkbox"/> graphics | <input checked="" type="checkbox"/> video |
| <input type="checkbox"/> games               |                                           |

**Exercise 5:** Listen to Part 2 of the conversation. In column A, tick hardware items named. In

column B, tick the items the assistant recommends.

A	B	Device	A	B	Device
<input type="checkbox"/>	<input type="checkbox"/>	multimedia computer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	handheld
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	multimedia notebook	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	printer
<input checked="" type="checkbox"/>	<input type="checkbox"/>	subnotebook	<input type="checkbox"/>	<input type="checkbox"/>	monitor
<input type="checkbox"/>	<input type="checkbox"/>	laptop	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Modem

**Exercise 6:** Study the text entitled "How to Read a Computer Ad" and then answer the following questions.

1. What is the memory size of PC? 16 Gigabyte
2. What storage devices are supplied? 512 GB and 2TB serial ATA
3. What size is the display screen? the display screen is 12 inches
4. How fast is the processor? operates at 0'clock speed of 3.6 gigahertz (ghz)
5. What is the capacity of the hard drive? 15.2 Terabyte
6. Which operating system does it use? microsoft windows 10 professional
7. What multimedia features does the computer have? integrated dolby atmos stereo audio.

## 2.2. Describing functions of computer

We can describe the function of an item in a number of ways. Study these examples.

<p><b>Using the present simple</b></p> <p>1. ROM <u>holds</u> instructions which are needed to start up the computer.</p> <p><b>Used to-infinitive, Used for + -ing form</b></p> <p>2. ROM is <u>used to hold</u> instructions which are needed to start up the computer.</p>	<p>3. ROM <u>is used for holding</u> instructions which are needed to start up the computer.</p> <p><b>Emphasizing the function</b></p> <p>4. <u>The function of ROM is</u> to hold instructions which are needed to start up the computer.</p>
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**Exercise 7:** Match each item with its functions. Then describe the functions in three ways as the examples on the table above.

Items	Functions
1. RAM g. 2. processor j. 3. mouse ft 4. clock I 5. flash memory key E 6. monitor C 7. keyboard B 8. cache H 9. DVD-ROM drive D 10. ROM F.	A. controls the cursor : B. inputs data through keys like a typewriter C. displays the output from a computer on a screen D. reads DVD-ROMs E. reads and writes to electronic chips on a card F. holds instructions which are needed to start up the computer G. holds data read or written to it by the processor H. provides extremely fast access for sections of a program and its data I. controls the timing of signals in the computer J. controls all the operations in a computer

~~RAM is used to store data and program~~



## Unit 2

### # exercise 7

1. RAM : - RAM enables the computer to run multiple programs simultaneously.  
- RAM used to facilitate multitasking.  
- the function of RAM is ~~a temporary storage and workspace for data~~ ~~to store~~ providing a place for multiple programs to reside concurrently.
2. processor : - processor performs various tasks related ~~to~~ to data processing and control.  
- a processor is used to execute a wide range of tasks.  
- the function of processor is to process data and execute instructions.
3. mouse : - mouse helps users control the position of the cursor.  
- mouse is used to access various functions, such as scrolling.  
- the function of mouse is for selecting, clicking, and interacting with various on-screen elements.
4. Clock : - clock keeps track of time in computer system.  
- a clock is used to maintain and provide real time tracking of the current time and date.  
- the function of clock is to indicate the current time.
5. flash memory key : - flash memory key stores data electronically.  
- flash memory key is used to backing up important data, sharing files, and transporting data between computers.  
- the function of flash memory key is to facilitate data storage, transfer and mobility.
6. monitor : - monitor displays visual information from a computer or other devices.  
- monitor is used to visually convey digital information.  
- the function of monitor is to show the output of a computer.
7. keyboard : - the function of keyboard is to enable users to input text and commands.  
- keyboard serves as the primary tool for text entry and command input.  
- keyboard is used to facilitate efficient data input.
9. DVD-ROM DRIVE : - DVD-ROM DRIVE reads and retrieves data from DVD disk.  
- DVD-ROM is used to watch DVD movies, install software.  
- the function of DVD-ROM is to read and retrieve data from DVD.
10. ROM : - ROM stores data and instructions in a non-volatile manner.  
- ROM is used to store the computer's firmware.  
- the function of ROM is to store essential firmware and software instructions.

**Exercise 8:** With your partner, describe the functions of these items using the forms you have learned before.

- |                     |                       |
|---------------------|-----------------------|
| 1. Scanner          | 6. ports              |
| 2. printer          | 7. mainframe computer |
| 3. CPU              | 8. barcodes           |
| 4. SSD              | 9. swipe cards        |
| 5. hard disk driver | 10. main memory       |

No. \_\_\_\_\_

Date \_\_\_\_\_

## unit 2

## exercise 8.

5. - a hard disk drive stores and retrieves data magnetically, serving as long term storage
- a hard disk storage is used to store and retrieve data magnetically, serving as long-term storage.
  - the function of a hard disk drive is to store and retrieve data magnetically, serving as long-term storage.
6. - ports facilitate the connection of external devices to a computer
- ports are used to facilitate the connection of external devices to a computer
  - the function of ports is to facilitate the connection of external devices to a computer.



**Exercise 8:** With your partner, describe the functions of these items using the forms you have learned before.

- |                     |                       |
|---------------------|-----------------------|
| 1. Scanner          | 6. ports              |
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| 3. CPU              | 8. barcodes           |
| 4. SSD              | 9. swipe cards        |
| 5. hard disk driver | 10. main memory       |

### 2.3. Comparing and contrasting computer

**Exercise 9:** Study these details of different types of computer. Find answers to the questions.

Which computer is?

1. The most common? the personal computer (PC)
2. Small enough for a pocket? smartphone
3. The most common portable? laptop
4. Used by many people at the same time? mainframe computer
5. Used like mainframes? server
6. Also called a handheld computer? personal digital assistants
7. The most powerful? super computers
8. Not suitable for a lot typing? tablet



**Exercise 11:** Choose the correct adjectives. Then fill in the gaps with the correct form of the adjectives.

**light/heavy**

Laptops are <sup>1</sup> lighter than desktop computers, but

<sup>2</sup> heavier than notebooks.

**large/small**

The mainframes is the <sup>3</sup> largest type of

computer. A minicomputer is <sup>4</sup> larger than a

microcomputer.

**common/good**

Personal computer are <sup>5</sup> smaller than

mainframes but mainframes are <sup>6</sup> more powerful than

personal computers at processing very large amounts of

**powerful/expensive**

data.

Minicomputers are <sup>7</sup> smaller than mainframes

**fast/cheap**

but they are also <sup>8</sup> less powerful

New computers are <sup>9</sup> faster and sometimes

**powerful/expensive**

<sup>10</sup> cheaper than older machines.

Laptops are often <sup>11</sup> lighter than PCs but they are

not as <sup>12</sup> powerful.

**Exercise 12:** Put the words in brackets into the correct form.

There are different types of computer. The (large) <sup>1</sup> largest and (powerful) <sup>2</sup> most powerful are mainframe computers. Minicomputers are (small) <sup>3</sup> smaller than mainframes but are still very powerful. Microcomputers are small enough to sit on a desk. They are the (common) <sup>4</sup> most common type of computer. They are usually (powerful) <sup>5</sup> less powerful than microcomputers.

Portable computers are (small) <sup>6</sup> smaller than desktops. The (large) <sup>7</sup> largest portable is a laptop. (Small) <sup>8</sup> smaller portables, about the size of a piece of writing paper, are called notebook computers. Subnotebooks are (small) <sup>9</sup> smaller than notebooks. You can hold the (small) <sup>10</sup> smallest computers in one hand. They are called handheld computers or palmtop computers.

Exercise 13: In pairs, discuss who or what you think is:

1. The most difficult game you've ever played. mobile legends
2. The most exciting film you've ever seen. me before you.
3. The funniest program on TV. Mr. bean.
4. The most dangerous computer virus. trojan, a type of malware that deceives users by hiding within files or software.
5. The best blogger or webmaster on the web. Hege, Stale, and Jan Egil Kjesner the author of w3schools.com - educational website for learning code.
6. The most popular web browser. Google. COM.



Useful Phrases for Presentation	
<b>Starting the presentation</b> <ul style="list-style-type: none"> <li>- good morning / good afternoon ladies and gentlemen.</li> <li>- what I'm going to talk about today is...</li> <li>- the subject of my presentation today is...</li> </ul>	<b>Explaining the purpose</b> <ul style="list-style-type: none"> <li>- my objective is to...</li> <li>- today I'm here to discuss...</li> <li>- my goal today is to explain...</li> <li>- we'll be exploring the reasons behind...</li> <li>- I want to take you through the key points regarding...</li> </ul>
<b>Stating the main points</b> <ul style="list-style-type: none"> <li>- the main points I will be talking about today are firstly..., secondly..., next..., finally, we are going to look at.</li> </ul>	<b>Introducing the first point</b> <ul style="list-style-type: none"> <li>- our initial focus will be on...</li> <li>- let's begin our first point, which is...</li> <li>- we'll start explaining...</li> <li>- first on the list is...</li> </ul>
<b>Showing visuals</b> <ul style="list-style-type: none"> <li>- I'd like to illustrate this by showing you.</li> <li>- as you can see the graph...</li> <li>- before we dive into the details, let me provide some context for this image.</li> </ul>	<b>Moving on to the next point</b> <ul style="list-style-type: none"> <li>- now let's move on to...</li> <li>- next up on our agenda is...</li> <li>- shifting our focus, let's explore...</li> <li>- moreover...</li> </ul>
<b>Referring to an earlier point</b> <ul style="list-style-type: none"> <li>- as we discussed earlier...</li> <li>- building upon what we learned earlier...</li> <li>- as we mentioned before...</li> <li>- take a look at back...</li> </ul>	<b>Summarizing</b> <ul style="list-style-type: none"> <li>- I'd like to recap the main points of my presentation. First I covered..., then we talked about... and finally we looked at.</li> <li>- to outline the key points...</li> </ul>
<b>Conclusion</b> <ul style="list-style-type: none"> <li>- I'm going to conclude that, inviting you to / quoting...</li> <li>- to wrap things up...</li> <li>- I'll leave you with this final thought...</li> </ul>	<b>Inviting Questions</b> <ul style="list-style-type: none"> <li>- now I'd like to invite any questions you might have</li> <li>- finally, I'll be happy to answer your Q.</li> <li>- I welcome any Q you have...</li> <li>- your Q is valuable, so don't hesitate to ask.</li> </ul>