

Module Inside a computer

Lesson Topic A typical computer

In this lesson the learners will do research on different types of computers. They will also explore the typical components of a personal computer.

Outcomes

- List the different types of computers
- Give a definition of each type of computer (mainframe, micro, mini, server, workstation, terminal, laptop, desktop and palmtop)
- Give a definition of a personal computer
- List the components of a personal computer
- Explain the use of each component of a personal computer

Materials Needed

- Copy of research project for each learner
- Copy of worksheet for each learner
- Transparency

Lesson

Content		Method
1	Class discussion	Ask learners if they have access to a computer. What type of computer do they use? Any information on computers will be accepted. Write down the keywords the learners say.
2	Research Project	Hand out the project. Explain it to the learners. You can either give the learners time in class to work on the project or you can give it as a homework assignment. Divide the class into groups and make sure all topics are covered. For your information a summary of all topics are attached.
3	Feedback on the project	Each group gives feedback on the project.
4	Summary on projects	Summarise the topics of the projects so that the learners understand the difference between each. If you want to you can allow the learners to make a summary in their workbooks.

5	Class discussion	Discuss the basic components of a typical PC. Use the transparency.
6	Worksheets	Let the learners complete the worksheets.
7	Class Discussion	Discuss the answers on the worksheets in the class.

Assessment/ Assignment

Give marks for oral feedback on the research project.

Assess the research project of each learner.

Give a mark for homework for the worksheet.

Notes

Personal Computer (PC), a computer designed for use by one person at a time. Personal computers do not need to share the processing, disk, and printer resources of another computer (although they can at the user's option).

Workstation, in computer science, in general, a combination of input, output, and computing hardware that can be used for work by an individual. More often, however, the term refers to a powerful stand-alone computer of the sort used in computer-aided design and other applications requiring a high-end, usually expensive, machine (US\$10,000 to US\$100,000) with considerable calculating or graphics capability. Sometimes, a workstation is also referred to as a microcomputer or terminal connected to a network.

Terminal, in computer science, a device consisting of a monitor and a keyboard. A terminal does little or no computer processing on its own; instead, it is connected to a computer with a communications link through a cable. Keyboard input is sent from the terminal to the computer; video output is sent from the computer to the terminal. Terminals are used primarily in multi-user systems and not often found on single-user personal computers.

Minicomputer, a mid-level computer built to perform complex computations while dealing efficiently with a high level of input and output from users connected via terminals. Minicomputers also frequently connect to other minicomputers on a network and distribute processing among all the attached machines. Minicomputers are used heavily in transaction-processing applications and as interfaces between mainframe computer systems and wide area networks.

Mainframe Computer, a high-level computer designed for the most intensive computational tasks. Mainframe computers are often shared by multiple users connected to the computer via terminals. The most powerful mainframes, called

supercomputers, perform highly complex and time-consuming computations and are used heavily in both pure and applied research by scientists, large businesses, and the military.

Microcomputer, desktop- or notebook-size computing device that uses a microprocessor as its central processing unit, or CPU. Microcomputers are also called personal computers, home computers, small-business computers, and micros. The smallest, most compact are called laptops and even palmtops. When microcomputers first appeared, they were considered single-user devices, and they were capable of handling only 4, 8, or 16 bits of information at one time. More recently the distinction between microcomputers and large, mainframe computers (as well as the smaller mainframe-type systems called minicomputers) has become blurred, as newer microcomputer models have increased the speed and data-handling capabilities of their CPUs into the 32-bit, multi-user range.

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computers

Research Project

Select one of the following topics and create an A4-poster on the topic. You will have to present your topic and poster to the rest of the class.



Do the following:

1. Select your topic from the list above.
2. Use the Internet, a digital encyclopedia, books or magazines from the library to find a definition of your topic.
3. Write the topic down on an A4 sheet of paper.
4. Write down the definition of the topic.
5. Draw a sketch or include a picture to explain the topic.
6. Include your source at the bottom of the page.
7. Be ready to present your topic to the class.
8. Stick this page to the back of your poster.

Group members who worked on the poster:

Assessment Rubric

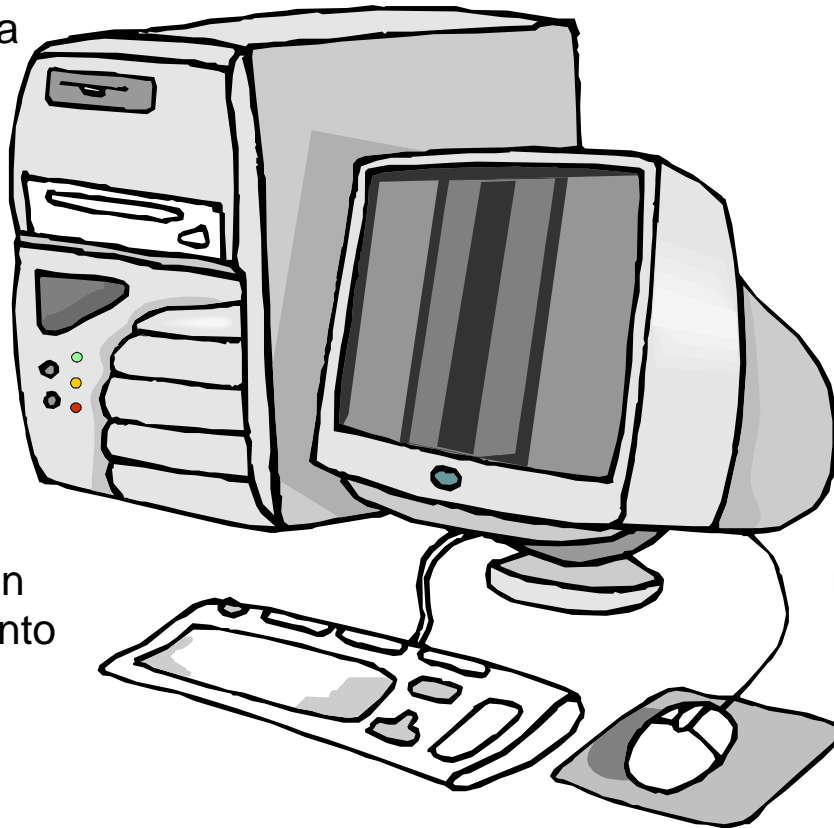
Definition of topic	5	
Sketch or picture	5	
Source complete	2	
Creativity	2	
Overall impression	1	
	15	

A Typical Computer

Computer system

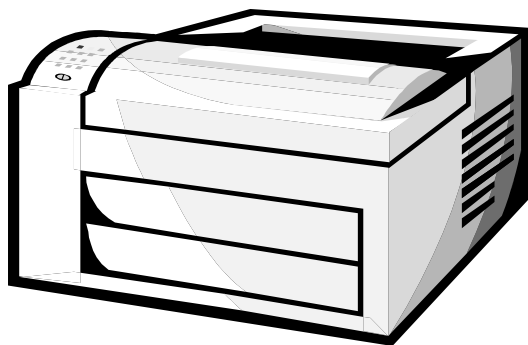
All the major components of a computer

Monitor
Displays text and images



Keyboard
Type information and instructions into computer

Mouse
User can select and move items on the screen

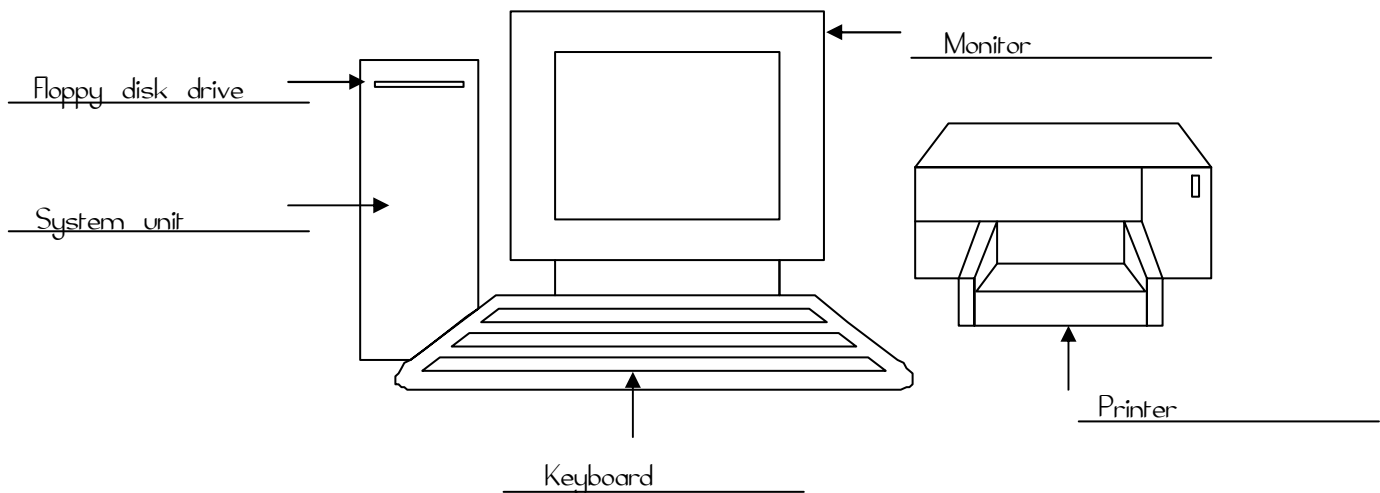


Printer
Produces paper copy of documents

Modem
Lets computers communicate through telephone lines

The Personal Computer System

1. Label the different components of the computer system below.



2. Explain what the function of each of the following computer components or peripherals is.

System unit: All the components of a computer system. Inside the case are the RAM, the microchip and the processor.

Floppy or CD ROM drive: Stores and retrieves information on floppy disks or CDs. You get different types of CDs; some can be written to; others can only be read from.

Keyboard: Used to enter information into the computer. The standard international keyboard has 101 different keys.

Mouse: The mouse is used to control the functions of the computer. When you move the mouse, the cursor on the monitor also moves.

Monitor: The monitor is the screen of the computer on which you can see the information that you have entered into the computer.

Printer: Used to obtain a hard copy (printed on paper) of the work that you have done on the computer.

Scanner: A scanner is a device that is used to read information into the computer. Some look like photocopiers. You can scan graphics and text.

Modem: A modem connects a computer to a telephone line. It translates the computer information into a form that can be transmitted over phone lines.

Speakers: Speakers are used to get sound output from the computer. If your computer has a CD-ROM, you will be able to listen to music CDs on your computer.

Joystick: A joystick is used mainly in games to control movement on the monitor.

USB Flash Drive: A small device that plugs into the USB drive of the computer. This can be used to store information on.

