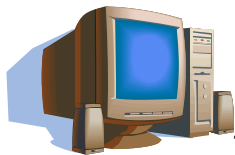




Introduction to Computers

Lesson One: Understanding a computer and its functions

There are different kinds of computers for different purposes. They are just as varied in size, expense, and ability as our more familiar 4-wheeled vehicles are.



The Computer:

Your "computer" is a collection of devices that function as a unit. The most basic collection includes a Computer CPU or "Operating System", a Monitor, a Keyboard, and a Mouse. The Computer CPU is normally a rectangular box that sits on your desktop (called a "Desktop Case") or next to your knee under the desk (called a "Tower Case"). The computer's CPU is actually a small electronic device inside the case but the term is often used to refer to the whole collection of electronics inside the box.

A **computer** is an electronic device that executes the instructions in a program.

A computer has four functions:

- a. accepts data *Input*
- b. processes data *Processing*
- c. produces output *Output*
- d. stores results *Storage*

The Information Processing Cycle



In the lessons that follow we will study the parts of the computer and each of the four parts of the Information Processing Cycle.

Basic Knowledge about computers and why they are useful

Speed: A computer can do billions of actions per second.

Reliability: Failures are usually due to human error, one way or another and that includes viruses.

Storage: A computer can keep huge amounts of data.



The Monitor your “User Window”:

The Computer Monitor is the computer user's window into the workings of the computer. It consists of a television picture tube that had been modified to accept the type of video signal created by the computer's electronics. Also called a video display terminal (VDT) a monitor is a video display screen and the hard shell that holds it. In its most common usage, monitor refers only to devices that contain no electronic equipment other than what is essentially needed to display and adjust the characteristics of an image.



The Keyboard:

The Keyboard is the primary input device used to communicate with the computer. A computer keyboard closely resembles a conventional typewriter keyboard with the addition of numerous keys that are used specifically for computing functions.



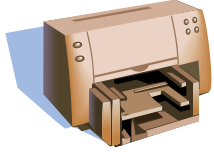
The Mouse:

Named for the resemblance of the wire coming out of it and a mouse's tail, the mouse was introduced to computing in the early 1980's when Macintosh created its graphical user interface (GUI). The mouse is another input device used to point at objects on the computer monitor and select them. Using the mouse and keyboard in combination allows the computer user substantial latitude in how to accomplish a wide variety of tasks.



The CD Rom/DVD Drive:

This modern miracle gained prominence in the late 1980's and has become the primary distribution medium for software to consumers. The Compact Disk-Read Only Memory (CD-ROM) disk itself is a collection of concentric circles containing millions of pits and plateaus which correspond to on/off bits of data. The disk is read with an optical laser similar to the one used to scan your groceries at the supermarket. Most disks of this kind are "Read Only" meaning that the computer can retrieve information from the disk, but cannot place information on it. New developments have improved this technology to allow writing and rewriting data to the disk. A different kind of hardware mechanism is needed to employ this innovation.



Peripherals:

Computer peripherals are any electronic devices that can be hooked up to a computer other than the standard input-output devices (monitor, keyboard, and mouse). Peripheral devices include speakers, microphones, printers, scanners, digital cameras, web cams and modems. Peripherals often require special software packages called "drivers". These drivers are usually included with the peripheral at purchase time.



The Floppy Diskette:

Once the most advanced of storage devices, floppy diskettes were normally used as a temporary storage container or transportation media for data. A standard floppy diskette can hold 1.44 MB of computer data. This amounts to a rather large number of pages if translated to the paper standard for textual information. Computer diskettes are not as reliable or fast as the internal storage drives on the computer. They are also the primary vector of virus infection in the computer world. Most often in this day and age (2007) you will rarely find a computer that still uses the floppy disk. The computer manufacturers are producing the now available CD/DVD.

Vocabulary for Lesson One:

You will be given vocabulary periodically to add to a list of current definitions or words. It is up to you to compile the list in a format that will be easy for you to reference and understand inshaAllah.

Hardware - the physical parts of the computer. (Listed for you above in the worksheet)

Software - the programs (instructions) that tell the computer what to do

Data - individual facts like first name, price, and quantity ordered

Information - data which has been massaged into a useful form, like a complete mailing address

Default - the original settings; what will happen if you don't change anything.

Other Words Used:

Computer, Monitor, Keyboard, Mouse, Peripherals, CD/DVD, and Floppy Diskette

Links Used for this Lesson:

<http://www.fayette.k12.il.us/99/Intro2Comp/parts.html>

<http://www.jegsworks.com/Lessons/lesson1-2/lesson1-1.htm>

<http://www.computerhope.com/jargon.htm>