

Objective: Learn basic computer terms and how to measure memory and storage**Basic terms:**

Hardware – is any part of a computer system that you can see or touch, such as the tower/system unit, monitor, keyboard, mouse, printer, etc.

Software – is a program which has instructions to perform a task or series of tasks.

Application Software – is for the user of the computer, to distinguish it from operating system software, e.g. Quicken, Internet Explorer, Adobe Reader, Microsoft Office programs – Word, Excel, PowerPoint, Outlook

Operating System Software – programs used to run your computer system. We are using Windows XP or Vista in the classroom. It controls communications between all devices (hardware) attached to your system, storing files and creating, naming, copying, moving, deleting folders, etc.

Memory – RAM (Random Access Memory) – is the computer working space, used by the computer to store information during processing. This is similar to the whiteboard used by a teacher in the classroom. When you open a folder, file or program, the computer uses memory space to do its work. When you turn off the computer, or the power fails, the memory is erased. You can think of this as short-term memory. There are chips inside the tower/system unit, on the motherboard, which provide this memory or working space.

Storage – is used for long-term storage of files, including user files, e.g. documents you create with Word, or spreadsheets created with Excel, email messages, pictures or music files. When you save data on your hard disk, you are using long-term storage. You can think of this as the file cabinet on your computer.

Hard Drive (HD) – is the hard disk drive inside the tower/system unit. It is usually labeled with the letter C:

Compact Disk Drive (CD) – is the drive inside the tower/system unit that reads and usually writes to removable CDs (RW stands for read/write). The letter assigned to this device depends on the computer setup.

DVD Drive –allows you to read DVDs (digital versatile disc or digital video disc), and in newer computers you can also write to a DVD (RW stands for read/write). The letter assigned to this device depends on the computer setup.

USB Flash Drive – (Universal Serial Bus) newest way to store data in a portable device. The letter assigned is usually the next available letter.

Central Processing Unit (CPU) – is the brain of the computer, where all processing is done. It is usually one or two large chips on the motherboard inside the tower/system unit. It is usually made by Intel or AMD.

Ways to measure memory and storage:

Byte (B) is one character, e.g. A or C or M or , or \$

Kilobyte (KB) is 1000 characters, e.g. the text that might fill one page

Megabyte (MB) is 1,000,000 characters, e.g. about 1000 pages filled with text

Gigabyte (GB) is 1,000,000,000 characters, about 1000 books, each containing 1000 pages filled with text.

Memory capacity varies in computers. 1 or 2 gb is typical in new computers today. If you plan to work with pictures or graphic images, it is good to have lots of memory. More memory can result in faster processing, because the computer has more working space.

Storage capacity varies for different drives and media:

HD (hard disk) is usually in the range of 80 to 200 GB or more.

Floppy disks are usually 2 mb (this is considered 'old' technology and new computers do not have floppy disk drives)

CDs are usually 700 mb

CDs can be either read only, recordable R, or rewriteable RW

DVDs can store 4.7 gb – 17 gb

USB Flash Drive can store 128 mb, 256 mb, 512 mb, 1 gb, 2 gb, 4 gb

CPU speed is measured in MHz (megahertz) or GHz (gigahertz).

A typical speed of a new computer is about 4 GHz.