

Computer Hardware



Input Devices

Keyboard
Mouse
Scanner
Digital Camera / Video Camera
Microphone
Joystick
Stylus & Pad
Touch Screen

Output Devices

Monitor
Printer
Speakers

Storage Devices

Magnetic Storage

Floppy Disk – 1.44Mb storage – slow – easily damaged

Hard Disk – Large capacity (up to 200Gb) – fast – not portable

Magnetic Tape – Large capacity but slow – used for backups



Optical Storage

CDROM (Compact Disc Read Only Memory)

640Mb or 72 minutes of music for standard discs (700Mb/80minute discs also available)

DVD (Digital Video Disc)

Can be double layer *and* double sided. Each layer can hold 4.7Gb for a possible total of approximately 17Gb.



Other storage

Memory cards – common in devices such as digital cameras – vary in capacity

USB drives – portable drives – vary in capacity – easy to use

The System Unit

The system unit is the box that contains all of the computer's internal components.

CPU (Central Processing Unit or Processor)

The brains of the computer, which performs all the calculations used by the computer programs. Made by companies such as Intel or AMD (Advanced Micro Devices). E.g. Intel Pentium 4 is a Pentium 4 brand processor made by Intel. Processor Speed is measured in gigahertz. E.g. 2.8GHz

RAM (Random Access Memory) – sometimes referred to as main memory or just memory

Temporary memory of a computer. All your work is stored in RAM until you save it to a storage device such as a disk. Contents of Ram will only remain as long as the computer is turned on. More RAM means a computer can do more things at once and generally run faster.



Graphics Card

Provides the computers graphics capabilities and has a plug for the monitor to connect to.

Sound Card

Provides the computers sound capabilities and has plugs for the speakers & mic to connect to.

Motherboard

Connects all of the components together

Software

Operating System

The link between the computer and the user. Examples:

Microsoft Windows

Apple Mac OS

Linux and Unix



Application Software

Software that performs a particular problem. Examples:

Word processing (Microsoft Word, Corel Wordperfect)

Spreadsheets (Microsoft Excel, Lotus 1-2-3)

Databases (Microsoft Access, Oracle)

Presentations (Microsoft Powerpoint)

Graphic Editing (Adobe Photoshop, Jasc Paintshop Pro)



Utility Software

Software that keeps your computer running without problems. Examples:

Disk defragmenter.

Antivirus programs

Internet firewall software (to stop hackers)



Computer Storage Units

Computers process information as ones and zeroes. For example, a computer might interpret 01100011 as being a particular number or letter. Each one or zero is one bit.

8 bit (E.g. 10010110) = 1 byte or the equivalent of one character (letter or number)

1024 bytes = 1 kilobyte (kb)

1024 kb = 1 megabyte (Mb)

1024 mb = 1 gigabyte (Gb)

1024 gb = 1 terabyte (Tb)