

# Computer parts:

- ▶ Motherboard
- ▶ Central Processing Unit
- ▶ Computer Memory
- ▶ Ports
- ▶ Power Supply
- ▶ Expansion Card
- ▶ CD Drive
- ▶ DVD Drive
- ▶ Floppy Drive
- ▶ Fan
- ▶ Heatsink

# Connecting Hardware to the computer:

- ▶ Hardware needs access through some general input/output connection.
  - ▶ **Port:** The pathway for data to go into and out of the computer from external devices such as mouse. There are many standard ports as well as custom electronic ports designed for special purposes.

# Ports:

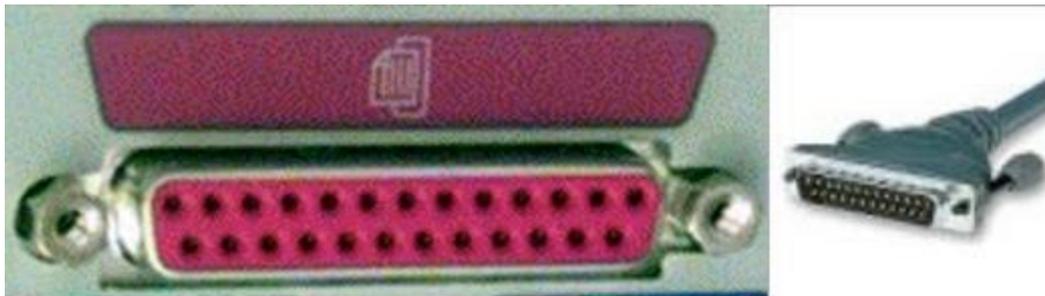
- ▶ **Serial Port** - Often used to connect a older mice, older external modems, older digital cameras, etc to the computer. The serial port has been replaced by USB in most cases. 9-pin connector. Small and short, often gray in color. Transmits data at 19 Kb/s.



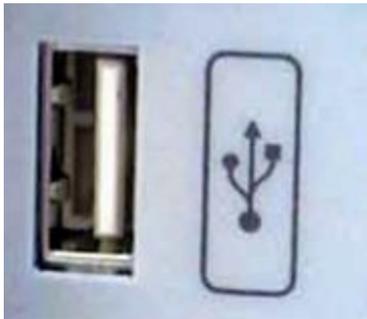
- ▶ **Monitor Ports** - Used to connect a monitor to the computer. PCs usually use a VGA (Video Graphics Array) analog connector (also known as a D-Sub connector) that has 15 pins in three rows. Typically blue in color.



- ▶ **Parallel Port** - Most often used to connect a printer to the computer. 25-pin connector. Long and skinny, often pink in color. Transmits data at 50-100 Kb/s.



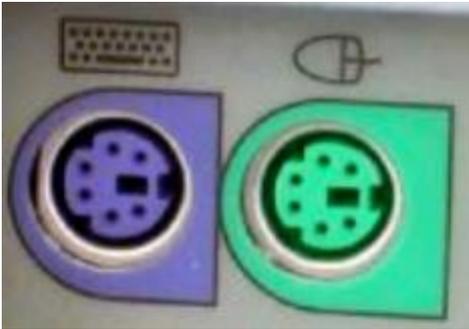
- ▶ **USB Port - Universal Serial Bus.** Now used to connect almost all peripheral devices to the computer. USB 1.1 transmits data at 1.5 Mb/s at low speed, 12 Mb/s at full speed. USB 2.0 transmits data at 480 Mb/s.



- ▶ **Firewire/ IEEE 1394 Port** - Often found on Apple Computers. Often used with digital camcorders. Firewire transmits data at 400 Mb/s. Firewire 1394B (the new firewire) transmits data at 3.2 Gb/s.



- ▶ **PS/2 Port-** sometimes called a mouse port, was developed by IBM. It is used to connect a computer mouse or keyboard. Most computers come with two PS/2 ports.



- ▶ **Ethernet Port-** This port is used for networking and fast internet connections. Data moves through them at speeds of either 10 megabits or 100 megabits or 1 gigabit depending on what speed the network card in the computer supports. Little monitor lights on these devices flicker when in use.



# Power supply:

- ▶ Power Supply - Gives your computer power by converting alternating current (AC) supplied by the wall connection to direct current (DC).



# Expansion Cards

- ▶ Used to add/improve functionality to the computer.
- ▶ **Sound Card** - Used to input and output sound under program control. Sound cards provide better sound quality than the built in sound control provided with most computers.



- ▶ **Graphics Card** - Used to convert the logical representation of an image to a signal that can be used as input for a monitor.



- ▶ **Network Card** - Used to provide a computer connection over a network. Transmit data at 10/100/1000 Mb/s.



# CD Drive

- ▶ CD (compact disc) - the most common type of removable media, suitable for music and data.
  - CD-ROM Drive - a device used for reading data from a CD.
  - CD Writer - a device used for both reading and writing data to and from a CD.



# DVD drive

- ▶ DVD (digital versatile disc) - a popular type of removable media that is the same dimensions as a CD but stores up to 12 times as much information. It is the most common way of transferring digital video, and is popular for data storage.
  - DVD-ROM Drive - a device used for reading data from a DVD.
  - DVD Writer - a device used for both reading and writing data to and from a DVD.

# Floppy drive

- ▶ A device that is used to read/write to floppy diskettes.



# Fan

- ▶ Keeps your computer cool. If the inside of your computer becomes too hot, then the computer can overheat and damage parts.



# Heatsink

- ▶ Used to disperse the heat that is produced inside the computer by the CPU and other parts by increasing surface area.

