



What's Inside a Computer

Power it Up!

- Every computer needs a **power supply**.
- When your computer is turned on, the power supply supplies electricity to the other components inside the computer.



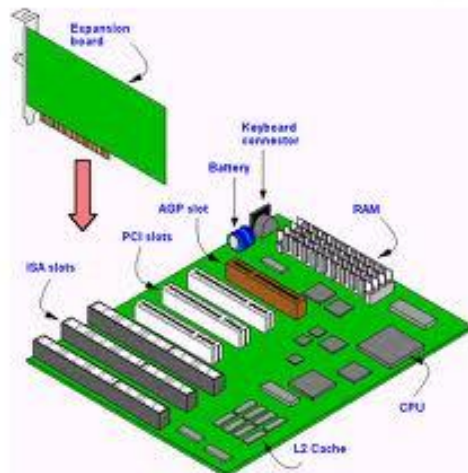
Motherboard

- The **motherboard** gets its name because it is like a mother to all of the other circuit boards.
- Found at the bottom of a desktop case or the side of a tower case, the motherboard is the largest circuit board and has many smaller circuit boards plugged into it.



Expansion Cards

- On the motherboard, you will find several **expansion cards**. Each of these cards has a special purpose.
- The **sound card** contains special circuits for operating the computer's sound.
- The **video card** handles graphics that are displayed on the monitor. There are also expansion cards for other computer components including the drives and ports.



Network Card

- The **network card** is an expansion card that allows computers to talk to each other.
- Sometimes referred to as the NIC-Network Interface Card
- A network card plugs the computer in to an RJ-45 network port or DSL connection so that information can be transferred between computers.



CPU

- The brain of a computer is the **CPU** or **Central Processing Unit**. It controls information and tells other parts what to do.
- The type of CPU in a computer also determines how fast that computer can operate.
- A CPU generates lots of heat, so there is usually a small fan nearby to cool it down.



BIOS

- A very important computer component is the **BIOS** chip. BIOS stands for **Basic Input Output System**.
- In very simple terms, the BIOS chip wakes up the computer when you turn it on and reminds it what parts it has and what they do.



Have you ever heard the terms
RAM and **ROM**?

RAM

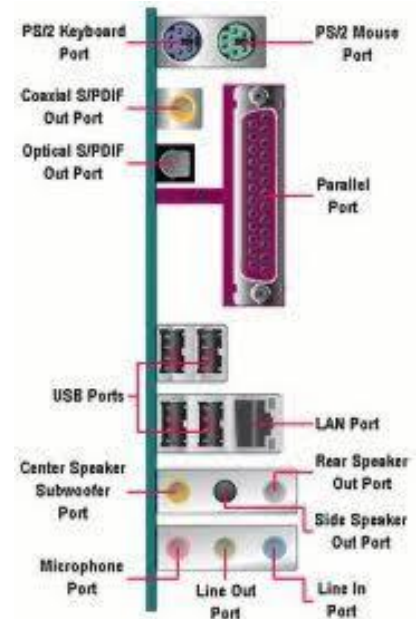
- RAM stands for **Random Access Memory**.
- RAM chips will remember what you tell them and can even change to remember new information. But, when the computer is turned off, RAM forgets everything you told it.
- This is why it is so important to **save** your work ! If the computer gets turned off, RAM will lose all of your work!

ROM

- ROM stands for **Read Only Memory**.
- ROM is good at remembering, but cannot change it's mind. It holds information that is built into it.
- ROM is like reading a book - lots of information is there, but you can't change it.

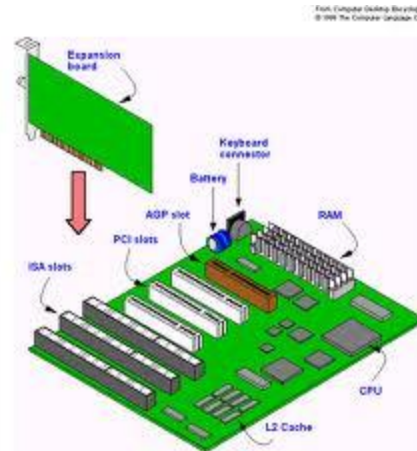
Ports

- **Ports** are the places on the outside of the computer case where you plug in hardware. On the inside of the case, they are connected to expansion cards.
- The keyboard, mouse, monitor, and printer all plug into ports. There are also extra ports to plug in extra hardware like joysticks, gamepads, scanners, digital cameras and the like.



Ports and Cables

- The ports are controlled by their expansion cards which are plugged into the motherboard and are connected to other components by **cables** - long, flat bands that contain electrical wiring.



Disk Drives

- **Disk drives** read information off of storage disks.



- The three most common disk drives are the **hard drive**, and **CD-ROM**. The CD-ROM is installed inside the front of your computer case so that you can get to them from the outside to load the software.



Hard Drive

- The **hard drive** is a set of rigid storage disks that is hidden inside the computer because they are not meant to be removed. Data is magnetically read from and written to the hard drive disks
- Information that you save on your computer is stored on these hard disks.



Components Inside a Computer

