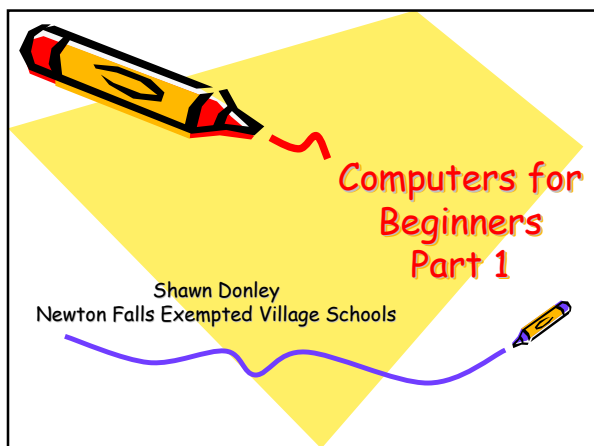
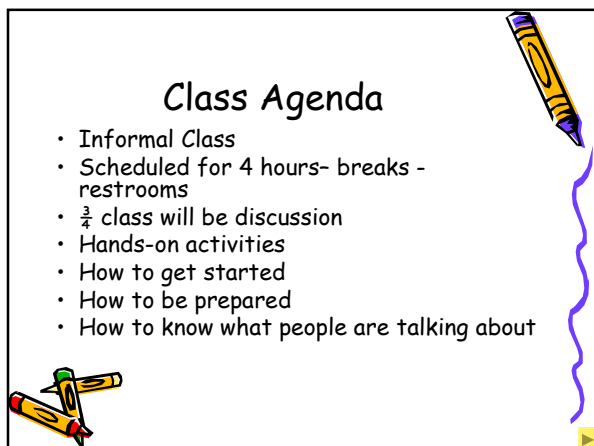








Today's Purpose

- To graduate you from the person who says.... " I am computer illiterate, I know nothing about them... "

To an avid computer user.



Frustration



Where to begin?

1. Understand what a computer actually is.
2. Understand how a computer works.
3. Understand that it is ok to try things.



What is a computer

By definition -

A device that computes, especially a programmable electronic machine that performs high-speed mathematical or logical operations or that assembles, stores, correlates, or otherwise processes information.



Where they can be found

- In your car
- In your phone
- In your TV
- In your VCR
- In your microwave
- Controlling your home utilities
- And... personal computers



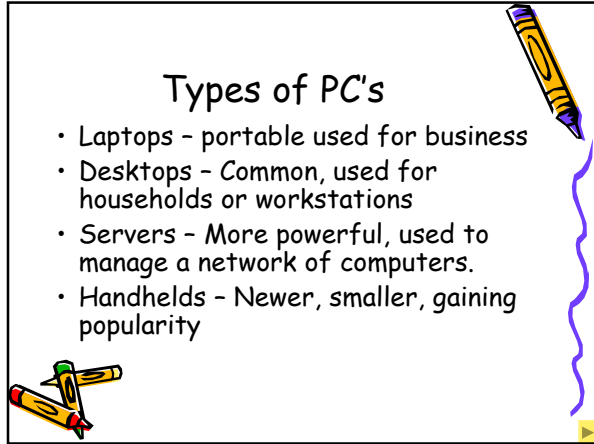
What are personal computers?

- What is this?



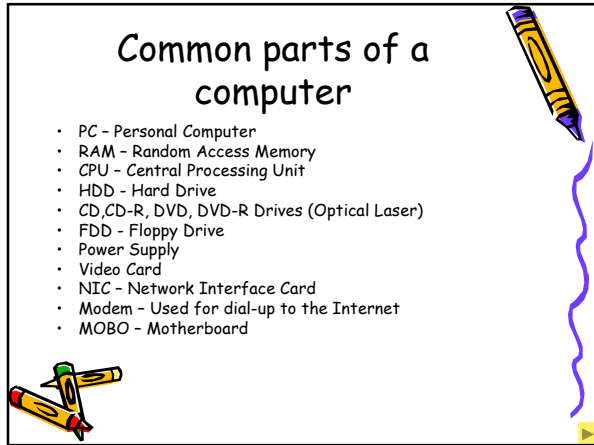
Types of PC's

- Laptops - portable used for business
- Desktops - Common, used for households or workstations
- Servers - More powerful, used to manage a network of computers.
- Handhelds - Newer, smaller, gaining popularity



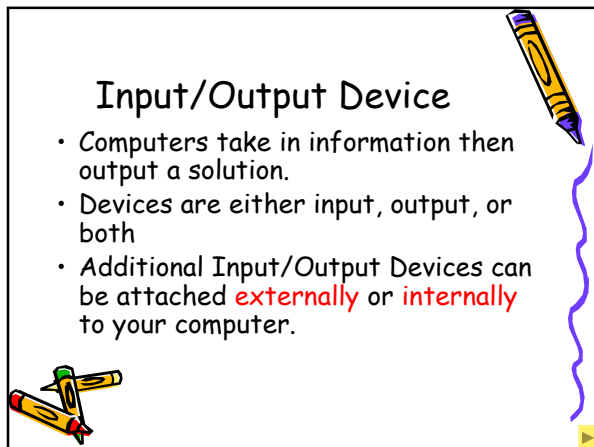
Common parts of a computer

- PC - Personal Computer
- RAM - Random Access Memory
- CPU - Central Processing Unit
- HDD - Hard Drive
- CD,CD-R, DVD, DVD-R Drives (Optical Laser)
- FDD - Floppy Drive
- Power Supply
- Video Card
- NIC - Network Interface Card
- Modem - Used for dial-up to the Internet
- MOBO - Motherboard



Input/Output Device

- Computers take in information then output a solution.
- Devices are either input, output, or both
- Additional Input/Output Devices can be attached **externally** or **internally** to your computer.



Input/Output

- CPU - Neither - processes
- Video Card - Output
- NIC - both
- Modem - both
- Monitor - Output
- Printer - Output
- Mouse - Input
- Keyboard - Input



Other Devices

- Printer
- Scanner
- Monitors (CRT or LCD)
- Thumb Drives
- Digital Cameras
- Speakers
- Joysticks
- MIDI Instruments
- Adaptive Devices



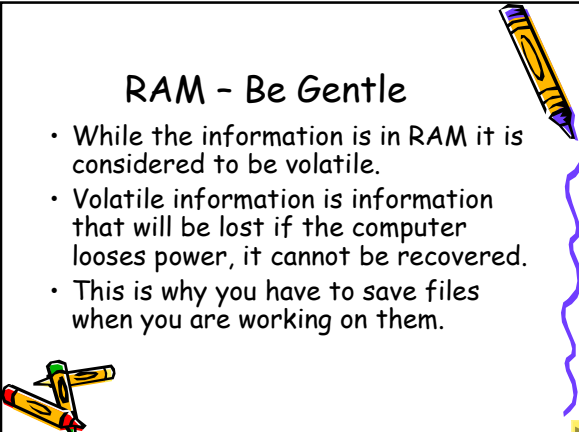
How information is stored and processed

- Data is stored inside of files either on the computer hard drive, floppy drive, CD-Rom, or RAM.
- Files are moved from the storage to the RAM so that the CPU can process the information.



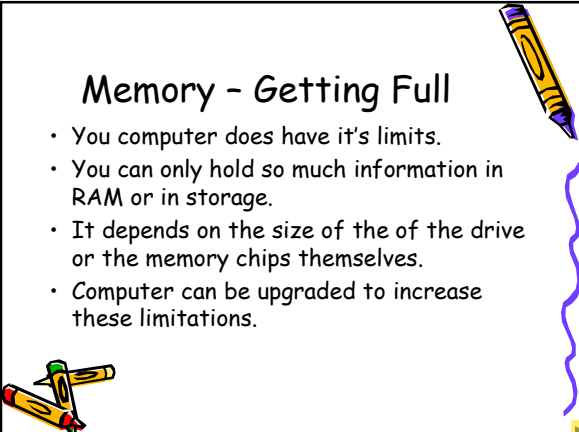
RAM - Be Gentle

- While the information is in RAM it is considered to be volatile.
- Volatile information is information that will be lost if the computer loses power, it cannot be recovered.
- This is why you have to save files when you are working on them.



Memory - Getting Full

- Your computer does have its limits.
- You can only hold so much information in RAM or in storage.
- It depends on the size of the drive or the memory chips themselves.
- Computer can be upgraded to increase these limitations.



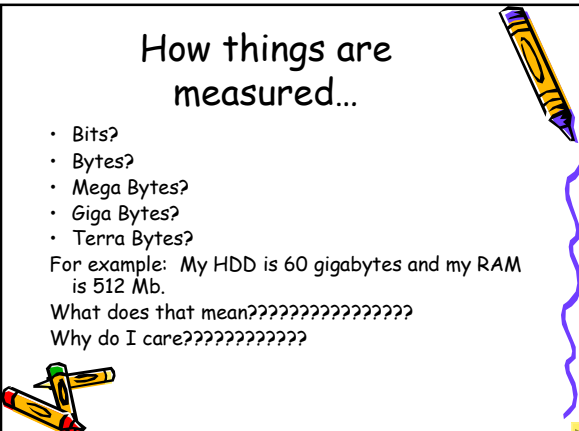
How things are measured...

- Bits?
- Bytes?
- Mega Bytes?
- Giga Bytes?
- Terra Bytes?

For example: My HDD is 60 gigabytes and my RAM is 512 Mb.

What does that mean????????????????

Why do I care????????????????



How things are measured...

- The smallest piece of data is called a bit, either 1 or 0.
- Eight bits make a byte.
- The computer understands bits and bytes.
- The series of 0's and 1's in a byte represents one character.

Ex: A = 001000001 - 8 bits, making up 1 byte.



How things are measured...

- 1024 bytes = 1 kilobyte (Kb)
- 1024 kilobytes = 1 megabyte (Mb)
- 1024 megabytes = 1 gigabyte (Gb)
- 1024 gigabytes = 1 terabyte (Tb)

60 GB HDD can hold how many bytes?



How things are measured...

- Answer: 64,424,509,440 bytes or characters can be stored on the Hdd.



To put it into perspective

- An average Word Processing document is 38 Kb.
- A 60 Gb hard drive can hold up to 1.6 million of just these files.



Average File Sizes

- Pictures 30k - 10 Mb
- Software 100 - 200 Mb
- Windows 3-5 Gb
- Temporary files - 20 - 30 Gb



Why should I care?

- If the computer reaches it's limitations it can:
 1. Act strange and not perform as before
 2. Reboot itself in the middle of working on something
 3. Not work at all



RAM

- Measured in Mb (newly Gb)
 - Common: 512Mb Ram
 - Different Types: Has to match the Mobo
 - The more the better
 - Average cost: 512Mb Ram = \$35



Hard Drives

- Stores all of your data files, operating system, and programs
- Measured in Gigabytes (Gb)
- Again, the more the better.
- Average cost = 200 Gb, \$70



Questions?

- Time for Questions
- Quick break