



# INTRO TO COMPUTERS I

Marshall County Public Library

## Basic Computers Skills I

### 1. Computer Parts



The **computer** is the box (sometimes called a **tower**) containing all the necessary parts and chips that make your computer operate, including the Central Processing Unit (or CPU), which is the brain of the computer.

**\*Locate the power button but PLEASE DO NOT PUSH IT!**



The **monitor** is a screen which gives us the visual indication of what the computer is doing inside.

**\*The Monitor can be turned off or on independently of the computer itself.**



**All in one** machines contain the computer and screen in one unit.

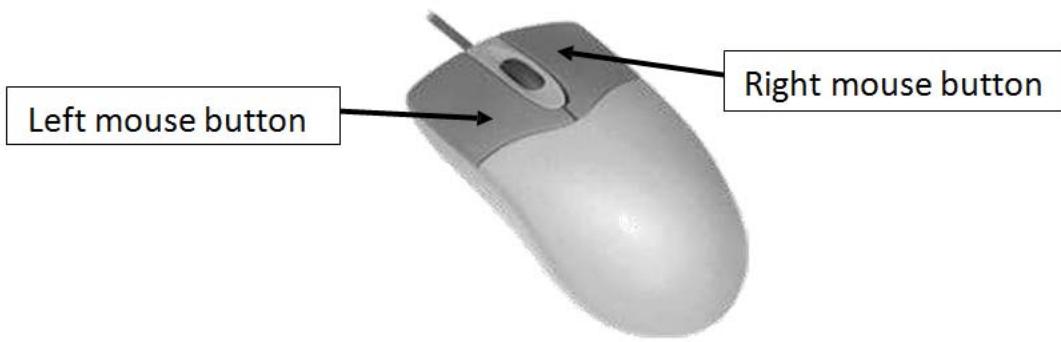


A **mouse** is one of the most common devices used to communicate with the computer. Moving the mouse around on your desk causes a **cursor** to move around on the computer.

The cursor acts like a virtual finger, allowing you to press buttons and select items on the screen.

**Keyboards** come in various shapes and sizes and are another way we can communicate with the computer. They resemble typewriter keys and work in much the same way. Notice the letters and numbers on the keyboard. It is arranged like a typewriter with a few different keys.

# Using the Mouse



1. Place the heel of your hand on a flat surface
2. Rest the rest of your hand over the mouse
3. The pad of your index finger should be on the left mouse button and the pad of your middle finger should be on the right mouse button

Clicking is the hardest part. It's a tapping movement that is just hard enough for the mouse to register that you tapped it. Single- clicking isn't too difficult to master, but double-clicking takes practice.

Double-clicking is a fast "tap-tap" on the left mouse button. It's not press-press. **If you tap too slowly, the mouse thinks it is two single-clicks.** Try practicing while your finger isn't on the mouse button.

To click and drag an object to move it or move the scroll bar up and down, place the mouse pointer on the object or scrollbar and **hold the left mouse button down** while dragging the mouse with your hand.

## Mouse Clicking Guidelines:

Single-click- Press the left mouse button once. This is used for Windows' pull-down menus, the start menu, and Internet links (just to name a few).

Double-click – Press the left mouse button twice quickly (same tempo as a knock-knock joke). This is used to open a program from the desktop or to open a file.

Right-click – Click the right mouse button once. This activates a short-cut menu that provides quick access to frequently used features. If you accidentally hit the right mouse button and the menu comes up, move to a blank area on your screen and click the left mouse button once—it will go away.

**Practice:**

**Move your pointer and hover over either the Google Chrome or Internet Explorer icon.  
Once there, using the left mouse button, double-click to open a new window.**

## Mouse Pointer Styles



White Pointer – to point to objects



I Beam Cursor – used when typing, inserting, and selecting text



Flashing Insertion Cursor – Shows you where your insertion point is in the text.



Resize Arrow – used to change the size of objects or windows



Move Arrow – Allows you to move objects or windows around on your screen

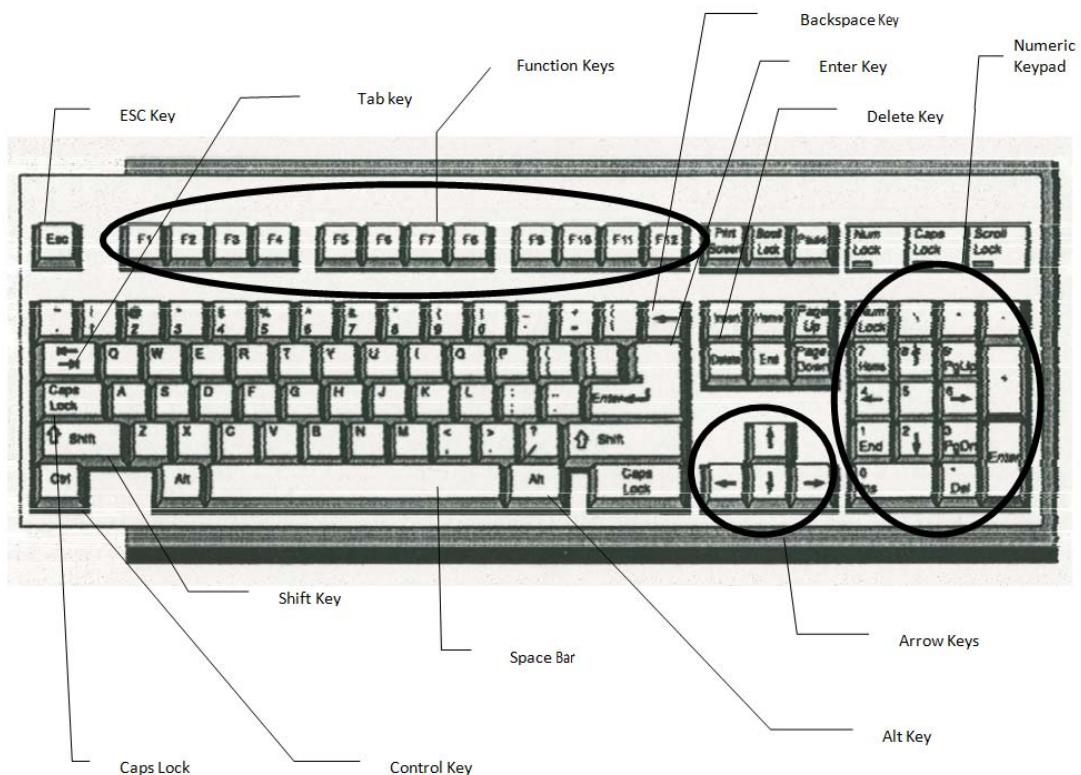


Hand - Some websites use this to show you additional information. The tip of the finger is the same as the tip of your White Pointer Arrow.



Hourglass – indicates the computer is busy processing information and you will not be able to do anything until the arrow changes.

# Using the Keyboard



**Control and Alt Keys** - Used in combination with other keys as shortcuts that can be used to activate commands (e.g. Ctrl and P keys will activate the print command).

**Arrow Key** - Allows you to move the cursor up and down, and left and right (often used in word processing or spreadsheet programs).

**Backspace Key** - Deletes one character to the left of the cursor.

**Delete Key** - Deletes one character to the right of the cursor.

**Caps Lock Key** - Press this key to type all characters in uppercase. Press it again to turn it off.

**Enter Key** - Sometimes referred to as the “return” key. It is used to activate a command, or move to the next line while working in a word processing program.

**Esc Key** - Short for “Escape,” this key is used to exit (or escape) from tasks (for example, closing a menu or dialog box).

**Function Keys** - Special keys labeled F1 to F12. Often these keys are used to perform shortcuts in programs. Each program uses these keys for different commands. Usually the F1 key is used to activate Help

**Shift Key** - Allows you to capitalize a letter or type the symbols or other characters which appear on the top portion of the keys.

**Space Bar** - Inserts one space between characters.

When typing a document in a word-processing program, you don't need to press Enter at the end of a sentence; the word-processing program will do it for you automatically! To add a space between words, press the **Spacebar**.

To capitalize a letter, hold down the **Shift** key while pressing the specific letter.

If you want to end a paragraph, press **Enter** once or twice.

If you make a mistake when typing, pressing the **Backspace** key will remove a character to the left of the flashing cursor. The **Delete** key will remove a character to right of the flashing cursor.

You can use the **Up**, **Down**, **Left**, and **Right** arrow keys to move through a MS Office program, like Word or through an Internet page.

The **Ctrl** (Control) and **Alt** keys are on the lower left of the keyboard. You may use them to log on to your computer, or for shortcuts.

**Ctrl+A** = select all (text on a document, etc.)

**Ctrl+C** = copy (to copy text or images)

**Ctrl+V** = paste (to paste text or images into a document)

Keyboard Shortcuts	
Action	Keystrokes
Create a new document	CTRL+N
Save a document	CTRL+S
Open an existing document	CTRL+O
Print a document	CTRL+P
Close a document	CTRL+W
Select an entire document	CTRL+A
Highlight a Word	Double-click within the word
Highlight a Paragraph	Triple-click within the paragraph
Highlight a Sentence	CTRL + click anywhere within the sentence
Copy text	CTRL+C
Cut text	CTRL+X
Paste text	CTRL+V
Undo	CTRL+Z
Redo	CTRL+Y
Bold	CTRL+B
Italics	CTRL+I
Underline	CTRL+U
Align Left	CTRL+L
Center	CTRL+E
Align Right	CTRL+R
Justify	CTRL+J

## 2. Important Elements for Computing



Usually when you purchase all of these computer components at a store, it is referred to cumulatively as a **system**. All of these computer parts may also be called **hardware**, which just refers to the physical components of the computer.



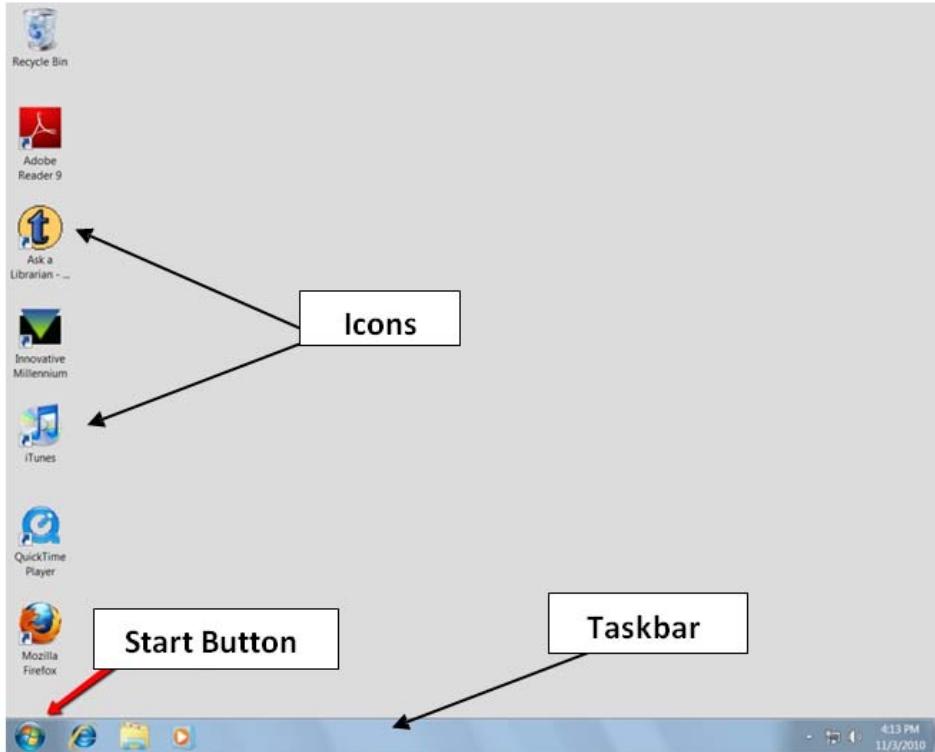
You can also buy a **laptop**, which is a small, light, compact computer which can easily be carried from place to place. Laptops combine the computer, monitor, and keyboard into a single unit, and they usually have a **touchpad** instead of a regular mouse.

Regardless of whether you buy a desktop computer system or a laptop, they will both include the following important elements:

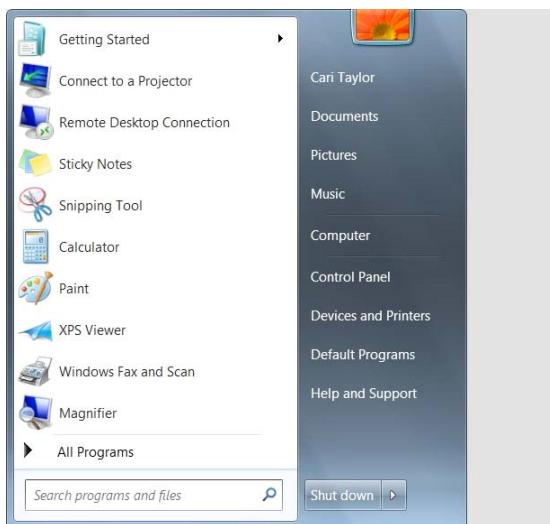
- **Operating System:** The purpose of an operating system is to allow **hardware and software to work together**. It controls the memory needed for computer processes, manages disk space, controls external devices, and allows you to communicate with the computer without knowing exactly how a computer works. **Without an operating system, a computer is useless.** The most common operating system is **Windows**. Most PCs purchased today include Windows 7 or Windows 8. Other popular operating systems include Macintosh OS X and Linux.
- **Applications/software:** **Programs used for a specific purpose.** When you buy a system, chances are it will have some basic software pre-installed. You can buy many different kinds of software to suit your needs. These include:
  - **Word processing programs:** Microsoft Word, WordPerfect, Works
  - **Desktop publishing programs:** Publisher, Print Shop, InDesign
  - **Spreadsheet/accounting programs:** Microsoft Excel, Quicken

### 3. The Desktop, Taskbar and Start Menu

- **Desktop:** The desktop is the on-screen work area in which windows, icons, menus, and dialog boxes appear. It is the screen that appears once the computer has finished booting up. On the desktop you will see several small pictures known as **icons**--small images displayed on the screen to represent a program or file. This is the easiest way to launch an application.



- **Taskbar:** The bar that contains the **Start Menu** and appears by default at the bottom of the desktop.
- The **Start Menu** contains the list of all **Programs** installed on your computer, as well as easy access to files and other common actions. It's also the button to click when you want to turn your computer off.



## 4. Basic Components of a Window

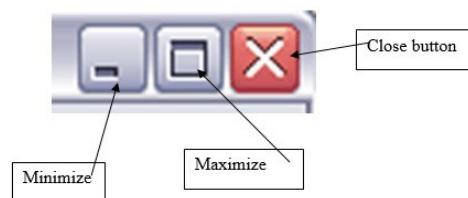
A **window** is a portion of the screen where applications and processes can be run. You can open several windows at once.

All windows have some of the same components:

- **Title Bar:** Tells you what function or program you are in.
- **Menu Bar:** Contains all the commands and functions for the window.
- **Minimize button:** Places the window on the taskbar—does not close the program. To open the window again, click on it from the taskbar—the gray bar across the bottom of your screen.
- **Maximize button:** Makes the window full size. When a window is maximized, the button changes to two small squares instead of one large square. This is the Restore button. Click on it and the window will go back to the original size.
- **Close Button:** Closes the window.



**A closer look:**



## 5. Scrolling

As you learned from the tutorial, sometimes you can't see all of the information on a page and you need to scroll up or down to see everything.

- **Scroll wheel:** On top of your mouse, there is a wheel that moves up or down. On most computers, you will scroll the wheel up to go up and down to move down the page.
- **Scrollbar:** On the right side of the screen, there is a bar with arrows on the top and bottom. This is the scrollbar. It allows you to move up and down to view items that are hidden by the limitations of the screen size.

### ❖ Four ways to use the scrollbar:

1. To move one line at a time, click on the arrow at the top or bottom.
2. To move one screen at a time, click on the space above or below the darker gray scroll button.
3. To move anywhere within the document, place the mouse pointer over the scroll button. Hold down the left mouse button and move the scroll button up and down the bar. Release the left mouse button when you have reached your desired location.
4. The roller wheel, located on the mouse, can also be used to scroll up and down a document.

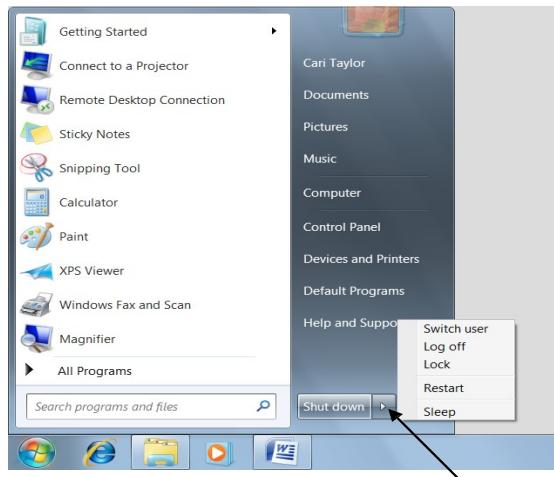
## 6. Shutting Down

When visiting the library, the computer is already on. You can just scan your library card at the computer, and you're ready to go! When you are using a computer at home, though, it is important to turn it on and off correctly.

Turning a computer on is as simple as pressing the power button. The computer may take a few minutes to start up as it goes through all the necessary processes of loading Windows, the operating system. You will know the computer is ready to use when you see the desktop.

Shutting down a computer properly is a bit more complicated than just pressing a button. Computers require a specific shutdown procedure to avoid the loss of data.

To shut down, you should first close any programs you have been using. Then, click on the big **start** button in the lower left-hand corner of the screen. This will bring up the Start menu. At the bottom right corner of the menu is the **Shut Down** option. Once you click this button, the computer will begin to turn off right away.



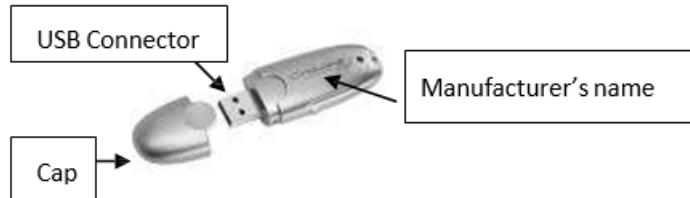
Please never shut down a public computer at the library. When you are finished using a library computer, just click **Exit** to log out and leave the computer ready for the next patron.

On home computers, if instead of shutting down, you simply want to restart the computer or log-off, click the arrow next to the 'Shut down' button for those options.

Other versions of Windows may have slightly different shut down menus, but those menus are always accessed through the Start Menu or Start Button.

## 7. Flash/Memory storage keys

Flash drive, jump drive, flash key, USB drive, thumb drive, flash memory, whatever. It has many different names, but all the names refer to the same thing. To insert a flash, jump, storage, key, drive...thing, remove the cap and insert the USB connector into any USB port on your computer. Ports may be on the front or back of your computer. Usually, insert the key with the manufacturer's name up, which is the top side.



- To save to a flash/memory key, insert key as shown above
- Click on File or the round MS Office button and then on Save as
- Click on the down arrow next to Save in and click on the
- Removable Disk drive and click on Save
- Remove key by clicking on the green curved arrow on the Start taskbar, click on safely remove...and then when a pop-up tip says it's safe to remove the flash key, pull it out from USB slot and put the cap on

### To see what's on a CD or flash/memory key

Insert disk or key and a window should appear. Double-click on the file you want to open. You can also click on Start, My Computer, then double-click on the appropriate drive, such as "Removable Disk Drive".

## **For Further Learning:**

- ❖ To practice on your own after class, we have computers set up for patron use. If assistance is needed, ask a library staff member to help you get logged in, and use your new found skills to surf like a pro!

## **Glossary of Computer Terminology**

**Blog** – (short for ‘web log’) is a type of web page that offers a series of posted items (short articles, photos, diary entries, etc.). Blogs have become a common medium for communication for both personal and business use.

**Bookmarks/Favorites** – A way to store web links for viewing later. It’s a lot better than trying to remember them!

**Broadband** – A very fast internet connection. It just means fast download and upload speeds. Web pages load almost immediately, files that take an hour to download with a dialup connection only take a few minutes with broadband. Cable and DSL (digital subscriber line) are broadband connections. With a broadband connection you never have to logon to the internet - your computer is always connected.

**Browser** – Programs that you use to view web pages and other documents on the Internet, also called “web browsers”. The most commonly used browsers are Google Chrome, Internet Explorer, Firefox, Safari (Mac), and Opera.

**Bytes and Bits** – Bytes are data. Bits are speed. Bytes are pieces of information. For indicating a “byte” the “B” is capitalized. It takes so many bytes to do anything that we never say “a byte.” We refer to bytes in the thousands (KB, or Kilobyte), millions (MB, or megabyte), billions (GB, or gigabyte), and now trillions (TB, or terabyte). You may have a 3 TB hard drive. It will store 3 trillion bytes of information. You may have 16 GB of ram that will keep 16 billion bytes of information at the ready instead of having to search your hard drive for it. You may have a picture or text file saved in a folder that is 15 MB in size. For a bit, the “b” is lower case indicating it’s a bit instead of a byte because a bit is a small measure of data than a byte. You may have a 50Mbps (50 Megabits per second) cable internet connection which means 50 million bits of information can come from the internet into your computer every second.

**CD-R** – short for Compact Disc Recordable can be used to save information, but once the information has been saved, it can’t be altered.

**CD-ROM** – short for Compact Disc Readable Only Media. A CD is capable of storing large amounts of data; it has the storage capacity of 700 floppy disks, enough memory to store about 300,000 pages of text.

**CD-RW** – short for Compact Disc ReWritable. This type of CD enables you to save, edit, and even delete saved information that had been written to it.

**Click** – To tap one of the mouse buttons. If clicking doesn’t work, try 2 quick taps (double-click). In some instructions, click may mean double-click. If one click doesn’t work, try double-clicking. Some mice have more than 2 buttons.

**Computer** – The box with the on/off switch and slots to put disks in. Anything not physically inside that box is not a computer. Don’t point to your monitor and say, “That’s my computer.” It’s not.

**Cookies** – In computer terminology, a cookie is data sent to your computer by a Web server that records your actions on a certain Web site. It’s a lot like a preference file for a typical computer program. When you visit the site after being sent the cookie, the site will load certain pages according to the information stored in the cookie. For example, some sites can remember information like your user name and password, so you don’t have to re-enter it each time you visit the site. While cookies have many benefits, some people don’t like to have their information

recorded by Web sites that they visit. For this reason, most Web browsers have an option to accept or deny cookies.

**CPU** – Acronym for Central Processing Unit, also referred to as a processor. You can think of the CPU as the brain of the computer; it is responsible for every task the PC performs. There are different manufacturers of processors such as Intel or AMD. The speed at which a CPU processes information is measured in Gigahertz (GHz). The higher the number, the faster it goes.

**Desktop** – When your computer is on, and no programs are open, you are looking at your Desktop.

**Download/Upload** – To receive or send a file from another computer. Clicking on a link will start the download process. When you are prompted, you will select the folder where the file will be saved after it is downloaded. When you send or receive an attached file via e-mail, this is just an attachment, not a download or an upload. In practice, it's understood for "upload" to mean "send" and "download" to mean receive. The terms are, by some, used loosely in practice and if someone says to you "Download (or upload) such-and-such a file to me" via e-mail, they simply mean "Send it to me."

**Dragging/Dropping** – Dragging is a variation of clicking. To drag an object, point at it with the cursor and then press and hold down the left mouse button. Move the mouse without releasing the mouse button, and drag the object to a new location. When you're done moving the object, release the mouse button to drop it onto the new location.

**DVD** – short for Digital Video Disc. It's a media in the same shape as a CD that holds a minimum of 4.7GB (gigabytes), enough for a full-length movie.

**Files and folders** – Let's say you have a file cabinet with only one drawer. You want to see the files from the Jones account. You open the drawer, choose the folder for Jones and in it you find all the Jones files. Each letter, picture, invoice, every piece of paper in that folder is a file. If you want to add a file to the Jones folder, don't just shove it in the drawer. Make sure you put it in the Jones folder or you will have a hard time finding it again. Computers are file cabinets with one drawer. When you turn your computer on you have opened the drawer. Inside the drawer you see folders. Inside the folders you see files. Each letter, picture, everything you save and all the different instructions that make up programs are files. I have saved a picture (file) named "Beach" on my computer and I want to see it. It is located in a folder named "Vacation" that I have created on my Desktop. If I open (click on) the folder I will see the file named "Woodlands Beach." If I click on that file it will open and I will see the picture. I love beaches.

**File Extension** – One or several letters at the end of a filename. Filename extensions usually follow a period (dot) and indicate the type of file. For example, 'my research paper.doc' indicates a Microsoft Word document file (.doc or .docx). Common image file extensions are 'picture.jpg' or 'picture.gif'.

**Flash Drive, USB Key, Thumb Drive, whatever** – a portable storage device that enables you to save, edit, and delete information. You plug it into a USB port on your computer and take your files with you.

**Hard Drive** – If you remove the hard drive from your computer you will have a computer without a hard drive in it. That's a dumb thing to do so if you do that - put it back. All the information in your computer is on your hard drive. There once was a time, in the not too distant past, when a great hard drive could store 25 MB of information or files. A "floppy disk" would store 1.44 MB of data. WHOA! Windows 7 is bigger than that and wouldn't fit on one of those old ones. Today, new computers come with, at least, 500 GB hard drives. Every time you save something it gets stored on your hard drive. An operating system (like Windows), 4 or 5 big games, Microsoft Office, a graphics editor, your grandmother's genealogy program and Aunt Cassandra's astrology program (all made out of bytes) can start filling up a hard drive pretty fast. So, the bigger your hard drive, the better.

**Hardware** – Anything that's hard. Programs aren't hardware because they're not hard...well, some are.

**Hovering** – When you position the cursor over an item without clicking your mouse, you're *hovering* over that item. In many programs you can hover over an icon and a small label will appear telling you what action will be taken by

clicking that icon.

**Icon** – a small picture that represents an object or program. Program shortcuts have the little curved arrow to let you know it's just a shortcut.

**ISP** – Internet Service Provider

**Keyboard** – The thing you type on. It is not **a** computer, but a part of **the** computer. It is an input device used to put words in the computer.

**LAN card** (Ethernet card) – Local Area Network. It allows you to use to connect to the internet. With the addition of other hardware, it also allows you to connect several computers together in a network. The cards range in price from about \$10 to \$200. The ten dollar one works fine. The two hundred dollar one has the advantage of being much more expensive... EVERY modern (bought after 2005) computer will come with one built in.

**Modem** – Another card. It's the one your phone plugs into. It allows you to connect to the internet at a speed 3 times slower than cold molasses pouring. I'm not sure there even is a dial-up internet anymore. I'm just including this for solidarity's sake.

**Monitor** – The “TV thing” you see stuff in. A monitor is not a computer. It is an output device. It outputs information from the computer so you can see it.

**Motherboard** – If you picture a computer repair man with a soldering iron and little wires and resistors and capacitors and stuff, forget it. Nowadays, everything in there is a separate component. If it goes bad, you pull it out and replace only the bad part. If you have a 1/4 inch nut driver and a Philips screwdriver you can replace *almost* anything in your computer. Most things in there are held in place by a few screws. It's possible, though not recommended, to take off the side of the case, pull out everything that's plugged into the slots on the motherboard (again, NOT recommended) and throw it away, then replace it with all new stuff. Once more, for solidarity, not recommended for noobs (see below). I digress; the motherboard is where the processor that does all the work and puts out all the information sits. All of the cables run to the motherboard.

**Mouse** – The little oblong thing with buttons that you click, a light on the bottom (for older-than-dirt mice, a ball on the bottom) and a wire that plugs in the back of the computer. It is another input device like the keyboard. More than one computer mouse are called mice. Mice with the light on the bottom are specifically referred to as an optical mouse.

**Noobs** – a modern term referring to people that are new to any form of technology.

**OS** – The computer's Operating System. I.e. Windows, Linux, Mac OSX

**Path** – Everything on my computer is on your hard drive. The name of my hard drive is "C:" The name of my OS is "Windows." I have a folder named "Vacation" on my "Desktop." In that folder is the picture (file) named "Woodlands Beach". If someone was using my computer and asked me where the picture of the beach is, I would tell them the path is C:/Windows/users/zmartin/Desktop/vacation/beach. Someday you may run across something that requires you to use paths. You probably never will, but if you do, you'll know.

**Printer** – The thing that prints. It is not a computer. It is a peripheral that plugs in to the computer. It is an output device used to display (output) data from the computer.

**Program** (application) – Set of instructions that you use to tell the computer what to do. A Word Processor is a program. You use a program to send email and so on. The computer won't do anything without a program to tell it what to do. When you open a program you see a GUI (pronounced gooey) on the screen. Everything you see on your screen is a graphic that you interface with. A GUI allows you to see and use the instructions in a way humans can understand. In other words, the "user" uses "graphics" to "interface" with the programs.

**Ram** – (Random Access Memory) Some RAM sticks that scoop some information off the hard drive and hold it out front for quick use so the computer doesn't have to search through the hard drive so much. It only scoops up stuff related to what you're doing at the time.

**Resolution** (screen resolution) – The monitor displays your information by making little dots glow in different colors. There are a lot of dots on there. The dots are called pixels. Depending on your video card (later), you can say, "My screen resolution is blahblah X blahblah." The first blahblah is how many dots will fit across your screen horizontally and the second blahblah is how many dots will fit on your screen vertically. Older computers had a screen resolution of 640X480. Then came 800X600. Newer ones are 1024X756. They're getting bigger every year. That's why you might have to scroll to the right to see all of some websites that were created to be viewed at higher resolutions than yours.

**Right-Click** – Clicking the right mouse button while your pointer is resting on something (an icon for instance) will almost always give you a menu that affects whatever your pointer is resting on. For instance, you can almost always delete something by right-clicking on it and choosing "Delete" from the menu that appears. Same with "Copy" and "Paste" and other options depending on what you right-click on.

**Save/Save As** – Pay attention. This is the number one thing that noobs mess up. Listen up, this is how you save something: You just typed a letter in Microsoft Word. You're finished with it and it's time to save. In Word, click "File." In the menu that appears click "Save As". A box named "Save As" will appear. On the left of the box, will be a list of folders that you can choose where you would like your document to be saved. Choose the folder you want to save it in. Near the bottom of the box is a field named "File name." Type the name you want it to have or keep the name that is already there. Now you can click on the "Save" button. No matter what you save or where it comes from...do that. If you download something from the internet you're going to see the same "Save As" box. Use it correctly and you will never lose a file. So, when do you use just plain "Save?" If you open an existing file, that's already saved in the folder where you want it, and you make some changes, you can use just plain "Save" to save the changes. The file will remain in the folder you opened it from and will keep the same name.

**Scanner** – The thing you put stuff in or on that you want scanned. It is not a computer. It is a peripheral. It is an input device. Scanners, like modems and dial up Internet, is virtually a dead device, almost impossible to find without going to a yard sale except for three-in-ones: Printer, Scanner, Copiers.

**Software** – Things like computer programs, t-shirts, and underwear. Physical components aren't software because they're hard.

**Sound card** – Like the video card but for sound...it's the one your speakers plug into.

**Video card** – A video card is another card that makes the video work. Video cards have those GB things we talked about. More GB equals a better display on your monitor. Off the shelf computers have what's referred to as a "discreet video card" meaning it's built onto the motherboard. If you don't play intense games, they'll do just fine. If you play Solitaire and Minesweeper, it'll still do just fine.

**Wallpaper** – The picture displayed behind the icons on your desktop.

**Windows** – A GUI "gooey" (again, I'm serious). Windows is an OS (operating system). It gives you tools and commands to use on your computer in the form of pictures you can click, so you don't have to type `C:dir*spit/belch;;del:tr/get*bark,,comattrib,>disprt` at the dos prompt in order to instruct your computer to open a program. There are other operating systems besides Windows for home computers but...that's not for this class.