El Camino College

Educational Development 40

Assistive Computer Literacy

Course Manual

SUCCESS   THROUGH

ACCESS

Raymond R. Lovell

EL CAMINO COLLEGE
EDUCATIONAL DEVELOPMENT 40
ASSISTIVE COMPUTER LITERACY

****
CONTENTS
****

EL CAMINO COLLEGE
EDUCATIONAL DEVELOPMENT 40
ASSISTIVE COMPUTER LITERACY

"COURSE SYLLABUS"
(or)
"EVERYTHING YOU ALWAYS WANTED TO KNOW"

Dear Student,

Welcome to Educational Development 40 - Assistive Computer Literacy. I think you will find this class both challenging and exciting. **PLEASE READ THIS SYLLABUS CAREFULLY AS IT WILL ANSWER MANY OF YOUR QUESTIONS.**

INTRODUCTION:

This is a two unit, transferable class designed to teach you how to use special assistive devices to gain access to computers. The class consists of two hours of lecture and two hours of Lab each week. We will meet for the lecture hours as indicated in the Schedule of Classes according to your section number. I will talk with you individually at the end of the first lecture. At that time we will reserve a computer for your 2 hours of Lab each week. Your attendance at both the lecture and Lab is critical. **DO NOT MISS THESE SESSIONS!** If you feel that you need additional Lab time, please see me or the Lab Assistants. We will be available to assist you during your assigned hours. The Lab Assistants are here to answer your questions, not to provide you with one-on-one tutoring. If you find that you are going to miss your Lab session, please call the High Tech Center **(310) 660-3922** so that your computer Lab time for that day's session may be given to another student. If you need to contact me, my office number is **(310) 660-3252**.

Basic typing skills are important. I do not expect you to be a "Whiz" on the keyboard, however you should have some familiarity with a standard typewriter and be able to type at least five words per minute. It is just too difficult to teach basic typing and computer access skills at the same time. This typing requirement will be waived if you will be using some method other than keyboard input to access the computer.

Under no circumstances will any food, liquid or smoking be permitted in the High Tech Center. Our computers are on a special diet and they are very careful about the air they breathe. We will be using Pentium 200 MHz (MMX) machines with several different types of assistive devices (voice input, voice output, single switch entry, large print to the screen, re-configured keyboards and a word prediction program). The particular access device that you will be using will depend on your individual needs and may vary from student to student. However, everyone will all be using the standard word processor known as Microsoft Word running in Windows 95. This is a generally accepted word processing program taught here at El Camino and used in industry. Once you have completed this class you can use open computer Labs on campus to complete homework assignments, type class notes, compile term papers, etc. Actually, that is the primary purpose for this class.

Upon completing this class, you may also enroll in Educational Development 41 which will enable you to further strengthen and refine your computer access skills.

TEXT & MATERIALS:

The information in this manual will be used extensively in both the lecture and lab sections of this class. You will be referring back to it many times during the course of the semester. It is **VERY** important that you bring this manual with you to both the Lecture and the Lab. I will discuss the required text in class. You need to have all these materials by the second week of the semester.

GRADING:

During the semester, you will have six objective quizzes. Each quiz will be worth 100 points. The material for the quizzes will come from class lectures, the textbook and the Course Manual. You will start the semester with 100 points. 10 points will be deducted for each absence after the first two. You can make up an absence from a Lab. The computer is set up to keep track of your Lab hours. Every time you log off of the computer, it will display the length of that session and the total number of hours you have logged for the entire semester. I will take roll during the Lecture section of the class.

Your final exam will be comprehensive and in two parts - Lecture and Lab. The Lecture and Lab finals will be worth 100 points each. A major portion of this class is about how to use the computer. For this reason, if you fail the Lab Final (< 60%), the highest grade you can receive in the class is a "D" (or No Credit), regardless of your other scores. Thus, total points possible for the entire semester will be 900... 600 points for quizzes, 100 points for lab attendance and a total of 200 points for the two finals. If you have a difficult time taking notes, I strongly encourage you to bring a tape recorder to class.

This class has been established on both a Credit/No Credit or a Letter Grade basis. A grade of **Credit** will show on your transcript if your average score for the semester is 70% or higher. If you chose to be graded on a **Letter** basis, you will be assigned a letter grade for the semester. (90% - 100% = **A**, 80% - 89% =**B**, etc.). I will meet with you at the end of the first class session to discuss your grading preference. You will have until the end of the **FOURTH** week of the semester to change your mind. However, after the fourth week, your grading method cannot be changed. One final ground rule... You will be working with a considerable amount of software. Under NO circumstances will any software be permitted to enter or leave the High Tech Center without my permission.

SURVIVAL SKILLS:

1. Faithful attendance at both the Lecture and Lab.
2. Good listening skills and the ability to take notes (or use a tape recorder).
3. The ability to concentrate and remember basic information.
4. The ability to complete quizzes without absolute panic.
5. Willingness to ask questions when you do not understand.
6. Interest.

As you may know, this class has gone through three major revisions in the past ten years. We are constantly chasing the cutting edge of technology. In some ways, you might say that we are all pioneers! I look forward to a most productive and enjoyable journey during the course of this semester. If there is something that you don't understand, **ASK QUESTIONS**. The only dumb question was the one that was never asked...

EL CAMINO COLLEGE
EDUCATIONAL DEVELOPMENT 40
ASSISTIVE COMPUTER LITERACY

	LECTURE	**LAB**
WEEK 1	Orientation	No Lab Scheduled
WEEK 2	Review the Keyboard	Review "Word" screen, Use of mouse
WEEK 3	Review the Keyboard	Start "Word", Start file, Print file Save file, "Save as" file, Exit Word
WEEK 4	**Quiz #1** "The Keyboard" Overview of Access Technology	Retrieve "Old" file, Use "Insert" key Delete & insert characters Add new text to old file
WEEK 5	Computer Vocabulary	Change margins
WEEK 6	Computer Vocabulary	Change document to double spacing Use of hidden codes
WEEK 7	**Quiz #2** "Computer Vocabulary" Storage Devices	Review concepts
WEEK 8	Storage Devices	View document, Select and Delete text, Un-delete text
WEEK 9	Storage Devices	Bold and Underline text
WEEK 10	**Quiz #3** "Mass Storage Devices" The Printer	Italicize and Center text
WEEK 11	The Printer	Change font style and size
WEEK 12	**Quiz #4** "The Printer" History of the Computer	Move, Copy and Print selected text
WEEK 13	History of the Computer	Review concepts
WEEK 14	**Quiz #5** "History of the Computer" Use of the "Explorer"	Spell Checker, Thesaurus & Grammar Checker
WEEK 15	Use of the "Explorer" Use of the "Explorer"	Practice Lab Final
WEEK 16	Use of the "Explorer" Use of the "Explorer"	Practice Lab Final
WEEK 17	**Quiz #6** "The Basics of the "Explorer" **DISTRIBUTE LAB FINAL EXAM!** Review for Lab & Written Finals	
WEEK 18	**TURN IN LAB FINAL AND COMPLETE WRITTEN FINAL. END OF SEMESTER!!!**	

EL CAMINO COLLEGE
EDUCATIONAL DEVELOPMENT 40
ASSISTIVE COMPUTER LITERACY

"PROTOCOL"
(or)
"THE DO'S AND DON'TS OF THE LAB"

1. The computer Lab is a classroom, a place to learn and complete homework assignments. If you wish to socialize, please go to the Activities Center. As a courtesy to other students, please lower your voice.

2. The people in charge of the Lab are the Lab Assistants. They will answer your questions when you are in the Lab. They are not to provide one-on-one tutoring.

3. If you wish to use the Lab but do not have a reservation on the Scheduling Board, make sure you are not in conflict with another student. If you would like to reserve a computer for a given time, please see a Lab Assistant.

4. Remember, the computer will keep track of all of your Lab hours.

5. If you will be absent, please call the High Tech Center so we can give your time slot to another student (660-3923).

6. If you miss two consecutive appointments, without notifying a Lab Assistant, you will be removed from the Scheduling Board and lose your scheduled Lab time. You must meet with a Lab Assistant to reschedule your Lab time.

7. You may drop into the High Tech Center at any time to see if a computer is available. First check with the Scheduling Board to assure that the machine you want is available and not reserved for another student.

8. If you are more than 10 minutes late for a scheduled Lab time and you have not called in, your machine may be given to another student for that entire session.

9. Do not print multiple copies of a single document. The printers are <u>not</u> to be used as copiers.

10. No software may be brought into or removed from the High Tech Center at any time, unless it has been approved by the instructor.

11. You are not allowed to make copies of any software.

12. You are not allowed to eat, drink or smoke in the High Tech Center at any time.

13. You are to remain in the Center only when you are working on a computer assignment.

14. The Center will remain open only when supervision is present.

15. You need to treat the software and equipment gently. It is all new and very expensive. We want to keep it in working order for many years.

"THE KEYBOARD"
(or)
"101 WAYS TO CONTROL YOUR CURSOR"

THE CURSOR - IT'S NOT ALWAYS WHAT YOU THINK...

While there are many different ways to get information into the computer, the keyboard is the most common. Think of the screen on the monitor as a blank sheet of paper. The cursor or insertion point is a blinking vertical line that appears on the screen and can be compared to the tip of your pen. When you type something on the keyboard, that character will appear on the screen at the location of the cursor.

THE ALPHABETIC KEYS - JUST LIKE A TYPEWRITER...

You will notice that the computer keyboard has many similarities to a standard typewriter. The alphabetic keys are laid out in the same manner and the space bar is just where it should be. The Caps Lock and Shift keys can also be found in their proper locations. It is important to note that the Caps Lock key will only effect the alphabetic keys. Once it has been depressed, all letters that are typed will be capitalized. To go back to lower case you must press the Caps Lock key a second time. This type of key is called a Toggle Switch. It is either in the "ON" or "OFF" position. If you wish to print one of the special characters (~@#$%^&*()_+ etc.) you must press the Shift key and the special character key at the same time. Remember, the Caps Lock key has no control over these special characters!

WHAT YOU SEE IS NOT ALWAYS WHAT YOU GET...

There are some additional keys that you will not find on a typewriter. These are the Control and Alternate keys located at either end of the Space Bar. These are very special keys that must be held down while striking another key. This causes the computer to behave in a very different way. How the computer behaves will be determined by the program you are using at the time. In many ways, they are similar to the **Function** keys (Fl ,F2, F3 ,F4, etc.) located across the top of the keyboard. We will talk more about this in the Lab.

FOUR VERY IMPORTANT KEYS...

1. The **"ENTER"** key. When you type something on the keyboard, it appears on the monitor and is placed in a temporary memory location (RAM) of the computer. As you reach the end of each line, the computer will automatically determine when to start the next line. This is a feature of Microsoft Word and it is called "Word Wrap". The only time you want to press the **ENTER** key is when you wish to start a new paragraph or you wish to place a blank line in your document.

2. The **"DELETE"** key. This key is generally used to make a correction on something that you have typed. When in Microsoft Word, the **DELETE** key will erase the character to the right of the cursor. The

BACKSPACE key, on the other hand, will erase the character to the left of the cursor. It is important to understand that in some cases you will not be able to use either of these keys to correct a mistake. This is generally the case when you bring up a menu to the screen.

3.   The **"ESCAPE"** key. Remember that problem you just read about regarding not being able to get rid of a menu once you have brought it up to the screen. The Escape key will save you from this error. If you activate   a menu and you change your mind and want to get rid of the menu without making a selection, just press the **Esc** key twice. Think of it as a Cancel key. The menu will disappear and the cursor will be placed back into your document. Ahhh....a chance to correct the error of your ways.

4.   The **"INSERT"** key. The Insert key is a toggle switch. It turns on automatically when you start the computer. When it is in the "on" position, the computer will allow you to insert text anywhere in your document without changing any of the existing text. When you tap the **Insert** key one time, the computer changes to the **Overtype** mode. This will cause the computer to erase (or type over) existing text and replace it with the new text that you are typing. When you are in the **Overtype** mode, "**OVR**" will be highlighted on the status line.

CONTROL /ALTERNATE / DELETE - THE BIG DUMP...

As you type in Microsoft Word, your words are placed in a temporary memory location in the computer (RAM). There may be times when you want to erase **all** of the temporary memory and let us say... start a new program. It is important to understand that you would dump memory only after you have saved your document and exited out of both Microsoft Word and Windows. There are really three ways to dump memory: 1) simply turn the computer off 2) depress the Control, Alternate and Delete keys at the same time or 3) press the Reset button located on the computer. Once you dump memory, all of the data that you have entered into the computer will be lost forever (Hyperspace! ! !) unless of course you have saved it on a disk.

THE ARROW KEYS - SLIDING THE CURSOR AROUND THE SCREEN...

After you have created a document, you may see a mistake. Let's say that you want to get the cursor back to that location so that you can make the correction. You can accomplish this by using the Arrow keys. They will allow you to simply slide the cursor around your document without having any effect on the existing text. This is most valuable when you see a mistake and you want to get the cursor back to that location. Later on in the semester you will learn an even faster way to move your cursor about your document. Use the arrow keys to the left of the ten key keypad as the keypad normally starts up in the "Numerical" mode.

THE TEN KEY KEYPAD...

The Ten Key Keypad is located to the far right of the keyboard. If the **Num Lock** light is on, the keypad is in the "Numerical" mode. Any number key that you type will appear as a numerical entry in your document. To change the mode, press the **Num Lock** key one time. The pad will now become a way of controlling the movement of your cursor. The **Num Lock** key is a **Toggle Switch** allowing you to move between the two modes. It is a good idea to stay in the "Numerical" mode and use the arrow keys to the left of the keypad to control the movement of your cursor.

"COMPUTER VOCABULARY"
(for the non-technocrat)

1. **ARITHMETIC/LOGIC UNIT:** part of the CPU that performs arithmetic and logic operations.

2. **BINARY CODE:** base two numbering system consisting of "0" & "1". This is the numbering system that computers use. It starts or stops the flow of electricity within the computer.

3. **BIT:** a zero or one resulting from electrical charges within a computer.
    BYTE: eight bits. This makes up one alphabetic, numeric or special character.
    KILOBYTE: 1,000 BYTES or characters
    MEGABYTE: 1,000,000 BYTES or characters
    GIGABYTE: 1,000,000,000 BYTES or characters

4. **BUG:** an error in a computer hardware/software system. Term comes from incident when insect crawled into a multi-million dollar computer (Mark 1) causing it to malfunction.

5. **BUS:** a data "highway" within the computer. It is a single or series of wires that transfers data.

6. **CD ROM:** stands for Compact Disk - Read Only Memory. This is a storage device (650MB). You can only read from the disk. You cannot save to the disk.

7. **COMPONENTS:** pieces of hardware that are connected to a computer. They are also known as peripherals: keyboard, printer, monitor, etc.

8. **CONTROL UNIT:** part of the CPU that interprets the program instructions and regulates the internal operations of the computer.

9. **CPU:** Central Processing Unit - comprised of the Control Unit, Arithmetic/logic Unit and the Memory Unit. This is a microprocessor and it is the "Brain" of the computer.

10. **CRT:** Cathode Ray Tube. This looks like a television and serves as a monitor on a computer system.

11. **DATA:** numbers, letters, symbols, etc. that can be stored or manipulated by a computer. Once processed this becomes information.

12. **DOS:** Disk Operating System - software that must be loaded for the computer to operate - it is like a software manager keeping track of files and peripherals. It is built into Windows 95.

13. **DISK DRIVE:** a mechanical device that will read and write data on a floppy or hard disk.

14. **DRIVERS:** also known as device drivers. This is a small set of instructions that enables the computer to "talk" to each of it's peripherals.

15. **FAT:** stands for "File Allocation Table". A special file on a hard or floppy disk that keeps track of where data is stored on the disk. This file is automatically created when you format the disk.

16. **FIRST GENERATION COMPUTER:** computer built in the 1940s using vacuum tubes. According to today's standards, they were slow and unreliable.

17. **FORMATTING:** the process of placing electronic lines on a hard or floppy disk.

18. **FOURTH GENERATION COMPUTER:** These computers were developed in the l970s used micro-processors and opened up the computing field for home use.

19. **HARDWARE:** physical components of a computer system such as the keyboard, monitor, disk drives, printer, etc.

20. **INPUT UNIT:** part of a computer system that allows data to be entered into the computer, i.e.: keyboard, mouse, scanner, etc.

21. **INTERNET:** A worldwide connection of millions of computers.

22. **MACHINE LANGUAGE:** a language set in a binary format that the computer understands.

23. **MAINFRAME:** a very large powerful computer.

24. **MEMORY UNIT:** part of the computer's CPU. Directs data to RAM.

25. **MICROCOMPUTER:** personal computer that is desk-top sized, most often used by one person and uses a microprocessor. Microcomputers can also be used as a "Server" on a "Local Area Network."

26. **MINICOMPUTER:** computer that falls somewhere between a micro and mainframe in size, speed, capacity and price.

27. **MODEM:** stands for **MO**dulator/**DEM**odulator. Allows for communications between computers via telephone lines.

28. **MULTIMEDIA:** a form of output from a computer that has sound, video and text.

29. **OUTPUT UNIT:** Part of a computer system that allows information to be displayed, printed or stored according to the user's needs.

30. **PORT:** a connector in the back of the computer that allows data to be transferred between the PC and a peripheral. There are generally two types: serial and parallel.

31. **PROGRAM:** a set of instructions telling a computer to perform specific functions or tasks. Also known as software.

32. **RAM:** **R**andom **A**ccess **M**emory. This is temporary memory, located on chips within the computer. The more of this the better.

33. **ROM:** **R**ead **O**nly **M**emory. Permanently stored memory, built into the computer during manufacturing.

34. **SECOND GENERATION COMPUTERS:** computers of the late 50s and early 60s. They replaced vacuum tubes with transistors.

35. **THIRD GENERATION COMPUTERS:** computers of the mid 60s which used integrated circuits. They were smaller, faster, more accurate and less expensive than previous computers.

"WORD PROCESSING VS. TYPING"
(or)
"TYPE IT AGAIN SAM"

FUNCTION	TYPING	WORD PROCESSING
Enter new material	Press keys	Press keys
Ending a line	Listen for bell, finish or hyphenate word, press Return key	Just keep typing, computer starts new line automatically
Correcting small mistakes	Erase, paint, tape over or lift off, type over	Backspace and type over
Correcting major mistakes	Retype the page(s) or cut and paste	Backspace and type over
Insertions	Retype line, page or document or cut and paste	Type new material at desired location
Deletions	Retype line, paragraph, page or document or cut and paste	Backspace and delete
Justifying right margin	Type once and count the spaces, type again adjusting the spaces	Word processor justifies automatically when requested
Centering titles	Center carriage and count backwards	Word processor centers automatically when requested
Copying standard paragraphs	Type them fresh or cut and paste	Word processor copies automatically when requested
Insert headers, footers and page numbers	Line up paper properly and type on every page	Word processor inserts automatically when requested
Proofreading	Read every word, every time it is retyped	Reread corrections only

"INTRODUCTION TO WINDOWS"
(OR)
"ON A CLEAR DAY..."

INTRODUCTION:

When you first start Word for Windows, the opening screen may seem very cluttered and even a bit threatening. Actually, it is not all that hard. In fact, it even has buttons & pictures (Icons) to help guide you through the process. Once you understand their function, you are half way home!

WHAT IS WINDOWS:

Windows is a program that makes it easier for you to communicate with the computer. When you run a Windows program, like Microsoft Word, think of the screen on your monitor as the top of your desk. The typing area on your monitor, which is called the **Document Window**, is like a pad of paper. This is where you will type or input your document.

The "Ruler Bar":

Across the top of your writing area, you will see what appears to be a ruler. This is where you set your indents and tabs.

The "Format Toolbar":

Above this ruler you have a row of boxes. Each box has a picture. They are used to help you format (bold, underline, center, etc.) text in your document. Think of them as tools that you will be using to complete your project.

The "Standard Toolbar":

Just above these pictures is another row of boxes. These boxes allow you to activate the most commonly used features of Microsoft Word (start a new file, open an existing file, print a file, etc.).

The "Menu Bar":

Just above the standard toolbar is the Menu Bar. The Menu Bar gives you a list of choices. Each of these choices is called a Command. When you select a command, it will bring up another menu. If the program needs more information from you, the program would display a **Dialogue Box**. As the words in the Menu Bar indicate, items are grouped under each command according to common functions. Anything that can be accomplished through the use of the Toolbars can also be accomplished through the Menu Bar. The Toolbars just give you quicker access to those features.

The "Title Bar":

The Title Bar contains the name of the application program and file that is currently active. The application software that we are running in this class is Microsoft Word and you will give each of your files a name prior to saving it for the first time.

"Sizing" a Window:

The sizing buttons are located in the upper right corner of the window you wish to resize. The first button keeps your document active in memory but reduces it to the size of an icon on the taskbar. The second button restores it back to its original size and the third button closes out the entire document.

The "Mouse":

Among other things, the mouse is used to activate a button or select an item off a menu or dialogue box. Remember all those Formatting, Tool Bar and Sizing buttons? You can activate them through the use of the **Mouse**. As you slide the mouse across a toolbar, a dark arrow will appear at the top of the screen. This arrow is called a **pointer**. You can activate a button by placing your pointer on it and tapping the **left** mouse button.

The "Taskbar":

This is at the very bottom of your screen. It contains the Microsoft **Start** button, the names of programs and documents that are loaded in memory and the current time. The **Start** button is also located on the keyboard.

The "Status Bar":

This is located just above the taskbar at the bottom of your screen. It tells you the location of your insertion point, the size of your document and the status of some commands that may currently be in effect.

The "Scroll Bars":

There may be times when the information that you want does not fit on the screen. You could use the horizontal or vertical scroll bars to see the text that is no longer visible. Simply left click (and hold down) the pointer on the arrow that is facing in the direction of the missing text. These arrows are along the right side and bottom of the screen.

The "View" buttons:

The **View** buttons are located to the left of the horizontal scroll bar at the bottom of your screen. The first button is **Normal** view and will generally be used when you are typing in your document. It will give you the largest typing area. The next button will display your document in a **Page Layout** view. This mode will display your document with a vertical ruler bar and your margins will actually appear on the screen. The third button will display your document in an **Outline** format.

The "Insertion Point":

This is a blinking, vertical line that indicates the location of the cursor. This is where text will be inserted in your document window or a particular function will be activated as you type on the keyboard.

When the pointer is in your **Document Window** it changes to what is known as an "**I**" beam. You can move the "**I**" beam anywhere in your document by using the mouse.. The **Insertion Point** (or cursor) will automatically jump to the location of the "**I**" beam when you press the **left** mouse button

As I said before, trying to learn all of this at once may seem a little overwhelming. Give it time. With enough practice, it will seem very natural. It is important that you learn the different parts of the screen as quickly as possible. When in doubt, refer back to this sheet or the **Windows Screen Diagram** at the end of this manual.

EL CAMINO COLLEGE
EDUCATIONAL DEVELOPMENT 40
ASSISTIVE COMPUTER LITERACY

"GETTING STARTED WITH MICROSOFT WORD"
(or)
"THE KEYS TO SUCCESS"

The following instructions are to get you in and out of Microsoft Word. It is very important that you follow them exactly as they appear on this sheet.

1.   Place your 3½ disk in the   **A** (top) disk drive and press the **Space Bar**.

2.   A **login dialogue box** will appear on the screen. Type in your **USER NAME** and press the **Enter** key. Your user name is the first letter of your first name and the first seven letters of your last name. After you press the enter key a second time, the computer will automatically load those programs that are appropriate for you and the **HTC Usage Timer** will appear on the screen. You will now be signed into the system.

3.   Select **Start**, **Programs** and then **Microsoft Word**.

4. **EUREKA**! You are now into the **Document Window** of Microsoft Word. At this point you can start   typing a **New** document. If you have an **Old** document that you want to edit, follow the directions in   #5, otherwise skip to #6. An old document is a document that you have created and saved on disk in the   past. This is a document that you have already named.

5. **TO OPEN AN OLD DOCUMENT (Ctrl+0)**... Select the **Open File** button on the **Standard Tool Bar**. A **Dialogue Box** will appear on the screen. Since you are saving your documents on the disk in the **A** drive, activate it by clicking on the **Look in** box, then select **3½ floppy (A:)**. This will display the word documents located on the disk in drive **A.** Double click on the document you wish to open (you could also middle click on the mouse.) This will cause the selected document to open and appear in your **Document Window** on the screen. When you open an old document, you are really just loading a copy of that document into RAM. The original document remains unchanged on your floppy disk.

6. **TO PRINT YOUR DOCUMENT (CTRL+P)**... When you are finished working on your document and   you have it just the way you want it, you can send it to the printer. You do this by selecting the **Print**   button in the **Standard Tool Bar**. This will send your entire document to the printer.

7. **TO SAVE YOUR DOCUMENT**... Always remember to **Save** your document before you log off the   computer. If you do not do this, all the work that you have completed during this computer session will be   lost forever - Hyperspace!

8. **HOW TO SAVE A NEW DOCUMENT**... If this is a new document that has never been saved before,   Microsoft Word automatically gives it a default name of **Document1** This will appear in the **Title Bar** at the top   of the screen. Before you save it for the first time, you must give it a new name. You do this by selecting the   **Floppy Disk** button on the standard tool bar. The **Save As...** Dialogue Box will appear. Since you are saving   your documents on the disk in the **A** drive, activate it by selecting the **Save in** box, then select the **3½ (A:)**.   Select the **File name** box and delete the default file name. Type in the new name and press the **Enter** key**.** The   program will now place you back in the document window and your document, with the new file name, will be

saved to the floppy disk in the **A** drive. The name of the new document name will now appear in the **Title Bar** at the top of your screen.

9. **HOW TO SAVE AN OLD DOCUMENT AND KEEP THE SAME NAME (Ctrl+S)**… If this is an old document that has been saved in the past, something other than **Document #** should appear in the **Title Bar**. To save this document, simply select the **Floppy Disk** button in the **Standard Tool Bar**. This will save the current document that is on the screen and give it the same file name that is in the **Title Bar**. However, it is important to understand that this file will replace the old file on your floppy disk.

10. **HOW TO SAVE A OLD DOCUMENT WITH A DIFFERENT NAME**.. There may be times when you want to make changes to a document and save it under a different name. You would do this by selecting **File**, and then **Save as...** from the **Menu**. Make sure the **Save in** box says **3½ floppy (A:)**. If it does, simply type in the new file name and press **Enter** key. The new name will appear in the **Title Bar**. The original document will be unchanged.

11. **TO EXIT MICROSOFT WORD**... Select **File** from the **Menu Bar**. A menu will appear on the   screen. Select **Exit**. This will place you back at the **Desktop**.

12. **TO LOG OFF OF THE COMPUTER…** Click on the **Signout** button. Take note of the hours logged, remove your floppy disks and select the **OK** button. Do not forget to return your disk to the bin!

KEY STROKES	MOUSE COMMANDS ===========> LOCATION	
TO OPEN AN OLD DOCUMENT:	Select "Open File" Button	Standard Tool Bar
ALT+F, O, ALT+I, 3, Press "Enter" key,	Confirm that "A" is the current drive	Drive Indicator Box
"Tab" into list of files, ↓ to filename,	Scroll thru window until you find file	FileName Window
Press "Enter" key	Select the file	File Name Window
	Select the "OK" Button	OK Button
TO PRINT YOUR DOCUMENT:	Print Button	Standard Tool Bar
CTRL+P, Press "Enter" key		
TO SAVE OLD DOCUMENT:	Select "Floppy Disk" Button	Standard Tool Bar
CTRL+S		
TO SAVE OLD DOCUMENT UNDER	Select "File"	Menu Bar
DIFFERENT NAME:	Select "Save as"	Menu
ALT+F, A, Type new file name,	Type in new name	Dialogue Box
Press "Enter" key	Select the "OK" Button	Dialogue Box
TO SAVE NEW DOCUMENT:	Select "File"	Menu Bar
ALT+F, A, Type New Filename,	Select "Save as..."	Menu Window
Press "Enter" key	Type new name	Dialogue Box
	Select the "OK" Button	Dialogue Box
TO EXIT Microsoft Word:	Select "File"	Menu Bar
ALT+F, X	Select "Exit"	Menu Window

"10 EASY LESSONS AROUND MICROSOFT WORD"
(or)
"BUSY FINGERS ARE HAPPY FINGERS"

1. **TO DELETE A CHARACTER...** Use the arrow keys (or mouse) to place the cursor to the left of the character that you wish to delete. When you press the **Delete** key, the cursor will delete that character to   the right and drag the line to the left one space. (The **Backspace** key will delete the character to the left of the   cursor).

2. **TO INSERT A BLANK LINE...** Place the cursor at the beginning of the line and press the **Enter** key.   A blank line will appear on your screen at that point. The remainder of your document will be shifted down   one full line.

3. **TO INSERT A WORD OR CHARACTER INTO EXISTING TEXT...** Place the cursor at the exact location in your document that you want to insert the new word or character. Make sure that the **OVR** switch is not toggled to the "On" position. This is accomplished by looking at the bottom of your screen (**Status Bar**). The **OVR** switch should not be highlighted. If you see that it is highlighted, simply press the **Insert** key one time and **OVR** will no longer be highlighted. You can now proceed to type and your existing text will be shifted to the right, thus making room for your new words or characters. For your information, **OVR** stands for "OVERTYPE".

4. **TO REPLACE A WORD OR CHARACTER IN EXISTING TEXT...** Put the cursor at the beginning of the text that you want to replace. Make sure that the **OVR** is highlighted on the Status Bar. If it is not highlighted, (in the off position) you can toggle it "On" by pressing the **Insert** key. You can now type your new text and the existing characters will be replaced with the new characters as you type.

5. **TO CHANGE YOUR MARGINS...** There may be times when you want to change your margins, making your line lengths shorter or longer. You may also want to change your margins at the top or bottom of each page. To do this you select **File** off of the **Menu Bar**. Then select **Page Setup.** A **Dialogue Box** will appear on the screen. After making changes to the top/bottom or left/right margins, select the **OK** button to save the changes. The **Dialogue Box** will disappear and your cursor will be back in your **Document Window**.

6. **TO SELECT AND DELETE A LINE...** There may be times when you wish to do something special to a section of text. You **Select** the text by placing your cursor to the left of the first character. Hold down the **left** mouse button and move the mouse until the desired text is selected. Now, press the **Delete** key and in this case,   all the selected text will be deleted.

7. **A FEW QUICK WAYS TO MOVE YOUR CURSOR AROUND THE SCREEN...**

Arrow keys	Moves cursor one space or line at a time.
Ctrl+↔	Jumps cursor left or right one word.
Home	Jumps cursor to start of line.
End	Jumps cursor to end of line.
Ctrl+	Jumps cursor up or down one paragraph.
Page up	Jumps cursor to beginning of previous screen.
Page down	Jumps cursor to beginning of next screen.
Ctrl+Home	Jumps cursor to beginning of document.
Ctrl+End	Jumps cursor to end of document..

8. **TO SET YOUR DOCUMENT TO DOUBLE SPACING (CTRL+2)**... There may be times when you want to write your document in single space and then go back in after you have finished and change your document to double space. You do this by **selecting** the text that you wish to double space. Select **Format** from the **Menu Bar**. Select **Paragraph** and a **Dialogue Box** will appear on the screen. Select **Line Spacing.** Select **Double** off of the drop list. Select the **OK** button and all the text that you had originally selected will now be in double space.

9. **HOW TO REVEAL YOUR HIDDEN CODES (CTRL+SHIFT+8)...** There will be times when you press a particular key (such as the **Enter** key) and your document is effected in some way, but nothing is actually printed to the screen. Although you cannot see it on the screen, a hidden code was inserted into your document at that point. These hidden codes are used to format your document. If your document does not seem to be behaving on the screen as you would like, turn these codes on. Actually, it is a good idea to leave these codes on at all times, even when you are typing text. To turn these codes on and off, select the box **"¶"** on the right side of the Formatting Toolbar. This will help you to understand why your document looks the way it does.

10. **TO VIEW YOUR DOCUMENT (CTRL+F2)...** What you see on the screen is generally what your document will actually look like when you send it to the printer. However, because there are a limited number of typing lines on the screen, you are not able to see an entire page at one time. Microsoft Word has a special feature to help you out. To **View** an entire page at one time, select **File** from the **Menu Bar**. Select **Print Preview** and your entire page will appear on the screen. To return to the **Document Window** select the **Close** button. You could also view your document by selecting the **Print Preview** button on the **Standard Toolbar.**

KEY STROKES	MOUSE COMMANDS =========>	LOCATION
TO DELETE A CHARACTER	Place cursor left of character and press "Delete" key.	Keyboard
TO INSERT A BLANK LINE	Place cursor at start of line and press "Enter" key	Keyboard
TO INSERT TEXT	Place cursor at location and type new text. Make sure OVR is not highlighted.	Keyboard Status Bar
TO REPLACE TEXT	Place cursor at proper location and type new text. Make sure OVR is highlighted. (Press "Insert Key")	Keyboard Status Bar
TO CHANGE MARGINS Press ALT+F, Press "U", TAB key, Enter new margin, Press "Enter" key	Select "File" Select "Page Setup" Make appropriate changes Select "OK" Button	Menu Bar Menu Window Dialogue Box Dialogue Box
TO SET DOUBLE SPACING Select text using Shift+Arrow Keys, Press CTRL+2 "Double"	Select "Format" Select "Paragraph" Select "Line Spacing" Drop List Select "OK" button	Menu Bar Menu Window Dialogue Box Select Dialogue Box
TO REVEAL CODES Press CTRL+SHIFT+8	Select "¶"	Formatting Toolbar
TO VIEW DOCUMENT CTRL+F2	Select "Print Preview"	Standard Toolbar

"SELECTING & FORMATTING TEXT"
(or)
"PRETTY PRINT..."

As you know, Microsoft Word allows you to **select** or **paint** a desired area of text and then treat that text as an entire unit. The actual process of marking the desired text is called **SELECTING**. This identifies a specific area within your document. You will generally **Select** an area of text when you want to format your document in some special manner. This is a two step process. First, you **Select** the specific text and then you tell the computer how you want to format that text. It is generally easier to write your document first and then go back and format it as needed.

TO SELECT AN AREA OF TEXT: Place the cursor over the first character of the text that you wish to format in some special manner. Hold down the **Left** mouse button and move the mouse in the direction of the text that you want to select. Notice that as the text is selected, it is marked with a black background. If you accidentally select a larger area than you wish, you can **Un-Select** the area by simply moving the mouse in the opposite direction or left click somewhere outside of the selected area. Once you have the proper area selected, you can let go of the **Left** mouse button and that area of text will remain selected. Now you can use one of the functions below to tell the computer how to treat that selected text in some special manner. After you have told the computer how you want to change the text, click the left mouse button one last time. The black background will disappear and your document will have the new characteristics.

1. **TO "BOLD" TEXT: Select** the desired text as indicated above. The text will be marked with a black background. **Select** the **B** (Bold) button in the **Formatting Toolbar**. You could also press **Ctrl+B**. Remember to click on the **Left** mouse button one more time to get rid of the black background. The selected text in your document will now appear to be bolded and this is how it will appear when you send it to the printer.

2. **TO "UNDERLINE" TEXT: Select** the area of text that you wish to underline and using the mouse **Select** the **Underline** button. This is the button in the **Formatting Toolbar** that has a large underlined **U**. You could also press **Ctrl+U**. The text that you selected will now be underlined. Remember to click the **Left** mouse button one more time to get rid of the black background.

3. **TO "ITALICIZE" TEXT: Select** the area of text that you wish to appear in *Italics* and **click** the **Left** mouse button on the **Italicize** box. This is the button in the **Formatting Toolbar** that has large *"I"* slanting to the right. You could also press **Ctrl+I**. The text that you selected will now be in Italics.

4. **TO "CENTER" TEXT: Select** the text that you wish to center and **click** on the **Center** box in the **Formatting Toolbar**. This is the button that has a series of short lines, all centered on top of each other. You could also press **Ctrl+E**. The text that you have selected will now be centered on the screen.

5. **TO "MOVE" TEXT: Select** the text that you wish to move. **Click** on the **Cut** button located on the **Standard Toolbar** (it looks like a pair of scissors). You could also press **Ctrl+X**. Place the cursor at the location where you want to move the text. Click on the **Paste** button located on the **Standard Toolbar**. (It looks like a sheet of paper on a clipboard). You could also press **Ctrl+V**. The original selected material will now be moved to the new location.

6. **TO "COPY" TEXT (Ctrl+C): Select** the text that you wish to move. **Click** on the **Copy** button located on the standard toolbar (it looks like two sheets of paper). You could also press **Ctrl+C**. Place the cursor at the

location where you want to copy the text. Click on the **Paste** button located on the standard tool bar. (It looks like a sheet of paper on a clipboard). As before, you could also press **Ctrl+V**. The original selected material will now be copied to the new location. Remember, when you **Move** text, the original is deleted. When you **Copy** text, the original stays where it is and a copy of the text appears at a new designated location in your document.

7. **TO "PRINT" A SELECTED PAGE:** There may be times when you want to print just a single page of your document. Place the cursor on the page you want to print. Select **File** from the **Menu Bar**. Select **Print** from the **Menu Window**. Select **Current Page** and press the **OK** button. The page that you have identified will be sent to the printer.

There may be times when you want to **Bold** and **Underline** the same text. You can do this by first **Bolding** the text and then going back and **Underlining** the same text while it is still selected. In fact, you can manipulate the text in any combination of the above formats.

If you wish to remove a particular enhancement, simply select the text and click on the proper Icon to remove the formatting characteristic.

KEY STROKES	MOUSE COMMANDS =====>	LOCATION
TO BOLD TEXT	Select desired text	Mouse
Select text using SHIFT+ARROW keys, Press CTRL+B	Select the "B" Button	Formatting Toolbar
TO UNDERLINE TEXT	Select desired text	Mouse
Select text using SHIFT+ARROW keys, Press CTRL+U	Select the "U" Button	Formatting Toolbar
TO ITALICIZE TEXT	Select desired text	Mouse
Select text using SHIFT+ ARROW keys, Press CTRL+I	Select the "I" Button	Formatting Toolbar
TO CENTER TEXT	Select desired text	Mouse
Select text using SHIFT+ARROW keys, Press CTRL+E	Select "Center" Button	Formatting Toolbar
TO MOVE TEXT	Select desired text	Mouse
Select text using SHIFT+ARROW keys, Press CTRL+X to cut text to clipboard, Move cursor to new location Press CTRL+V to past text at new location	Select "Cut" button / Place cursor at new location / Select "Paste" button	Standard Toolbar / Mouse / Standard Toolbar
TO COPY TEXT	Select desired text	Mouse
Select text using SHIFT+ARROW keys, Press CTRL+C to copy to clipboard, Move cursor to new location, Press CTRL+V to past text at new location	Select "Copy" button / Place cursor at new location / Select "Paste" button	Standard Toolbar / Mouse / Standard Toolbar
TO PRINT A SINGLE PAGE	Place cursor on proper page	Mouse
Place cursor on page to be printed, Press CTRL+P for Print Menu, Press TAB to enter Page Range Option, Press Down Arrow to select current page, Press ENTER to print current page.	Select "File" / Select "Print" / Select "Current Page" / Select "OK"	Menu Bar / Menu Window / Dialogue Box / Dialogue Box

"SPELLING, GRAMMAR & THE THESAURUS"
(OR)
"THE ABC's OF YOUR DOCUMENT"

As you type text into the computer, there may be times that individual words are underlined in red. This is caused by the spell checking program built into MS Word for Windows. Each time you type a new word, the computer checks that word against a dictionary that is active in memory. If there is not a match for that word, the computer will automatically underline it. This should get your attention and cause you to check the spelling of your most recently typed word. There may be times when the computer underlines a word and you know that it is spelled correctly. This simply means that the word is not in the computer's dictionary. Often times, proper names and places will not be in the dictionary. If the word is spelled correctly, just ignore the underline and continue to type.

TO CORRECT YOUR SPELLING... To check the spelling of the word, place the cursor on the word you want to check and select the **ABC** box in the **Standard Toolbar**. You could also press the **F7** key. The **Spelling Dialogue Box** will appear on the screen. The word you wish to check will appear in the **Not in Dictionary** window. The word in the **Change To** window will replace your misspelled word if you select the **Change** button at this time. If the word in the **Change To** window is not the word you wish to select, you may select an alternative word from the **Suggestions** window. Once you have done this, select the **Change** button and the new word will replace your old one and the computer will search through your document for your next misspelled word.

If none of the words in the **Suggestions** window are correct and you know how to spell the word, you can type the correct spelling in the **Change To** box and select the **Change** button. Once again, the computer will replace the word in your document and search for your next misspelled word.

As the program searches through your document it may stop on a word that is spelled correctly but not in the dictionary. If this happens, select the Ignore button and the computer will skip this word and continue to search through your document.

The program is also capable of finding repeated mistakes where you may have typed in the same word twice, such as "the the". If the computer finds this situation, it will stop at that point and ask if you wish to delete the second "the". Select the **Delete** button and the computer will make the correction and move on to the next misspelled word.

Remember, it is a good idea to run your entire document through the spell checker prior to sending it to the printer.

TO USE THE THESAURUS... A Thesaurus is a special dictionary that allows you to look up synonyms or antonyms. Synonyms are words that have the same meaning and antonyms are words that have opposite meanings. You could use the Thesaurus when you find that you are overusing a single word and you want to use another word that means the same thing or you want to find the opposite meaning of a specific word.

To use the thesaurus, place your cursor on the word you wish to check and select the **Tools** option off of the **Menu Bar**. A **Menu Window** will appear on the screen. Select **Thesaurus** and a **Dialogue Box** will appear. The word you are checking will be in the **Looked Up** window and alternative words will appear in the window to the right. Just below the **Looked Up** window is another window titled **Meanings**. Often, a word can have more than one meaning, such as the word "table".

Table could mean: 1. something like a desk or a counter
                     2. a chart with numbers on it
                     3. something that you are going to
                        postpone and act on at a later time

It is important that you select the proper meaning of the word prior to selecting the synonym. As you select different meanings for the word, notice that your alternative options in the window to the right also change. Once you have selected the proper alternative word, select the **Replace** button and the new word will appear in your document.

If you wish to look up the opposite of a word (an Antonym) select the word **Antonym** off the **Meanings** window. The alternative options window will change and the words in this window will now be the opposite of the original word in your document. Make your selection and press the Replace button as before.

Notice that the parts of speech (noun, verb, adj.) are indicated after each word in the **Meanings** window. This can be very helpful in identifying the proper meaning of a word according to the way it was originally used. If the word you are looking up was a noun then you would want to replace it with a similar part of speech.

TO USE THE GRAMMAR CHECKER... It is also possible to run your document through a program that will look for errors in your grammar. You start this feature by selecting **Grammar** from the **Tools Menu Bar**. The **Grammar Dialogue Box** will appear on the screen. The top window will indicate the sentence under review and the bottom window will indicate what the computer feels is wrong with the sentence. You can then make changes to the sentence and select the **Change** button.

There may be times when you do not understand the explanation of the error. The sentence, as you wrote it, seems perfectly clear to you. If this is the case, call one of the Lab Assistants for help. Remember, grammar checkers are not perfect. There may be times when it stops on sentences that are correct and does not catch other sentences that have errors. Your best guard is to proofread your own paper!

EDUCATIONAL DEVELOPMENT 40
ASSISTIVE COMPUTER LITERACY

"ALTERNATIVE KEYSTROKES"
(or)
"PUT THE MOUSE TO BED"

Up to this point, you have been using the mouse to select text, icons and items off of a menu or dialogue box. The exact same thing can be accomplished using keyboard strokes. Whether you choose to use the mouse or the keyboard is up to you. Use whatever you feel most comfortable with.

SELECTING TEXT:

Shift+⦿	Selects a Character
Ctrl+Shift+⦿	Selects a Word
Ctrl+Shift+⁻	Selects a Paragraph
Shift+End	Selects to End of Line
Shift+Home	Selects to Beginning of Line
Ctrl+Shift+End	Selects to End of Document
Ctrl+Shift+Home	Selects to Beginning of Document
Ctrl+A	Selects Entire Document

SELECTING ITEMS OFF OF MENU BAR:

Alt+F	File
Alt+E	Edit
Alt+V	View
Alt+I	Insert
Alt+O	Format
Alt+T	Tools
Alt+W	Windows
Alt+H	Help

FORMATTING TEXT & GENERAL COMMANDS:

Ctrl+N	Create a New File	**Ctrl+B**	Bold
Ctrl+O	Open an Existing File	**Ctrl+I**	Italic
Ctrl+S	Save File (Under Current Name)	**Ctrl+U**	Underline
F12	Save As (Under New Name)	**Ctrl+X**	Cut
Ctrl+P	Print	**Ctrl+C**	Copy
Ctrl+F2	Print Preview	**Ctrl+V**	Paste
Alt+F4	Closes the Current Application	**Ctrl+L**	Align Paragraph Left
Ctrl+F4	Closes Document Window	**Ctrl+R**	Align Paragraph Right
Ctrl+Shift+8	Display Codes	**Ctrl+E**	Align Center
Ctrl+Z	Undo	**Ctrl+Shift+F**	Font Type
Ctrl+Y	Redo	**Ctrl+Shift+P**	Font Size
Esc	Removes Menu/Dialogue Box	**Ctrl+2**	Double Spacing
Alt Key or F10	Activates Menu Bar	**F7**	Check Spelling
F5	Go To	**Shift+F7**	Thesaurus

"STORAGE DEVICES"
(or)
"THE CARE AND FEEDING OF FLOPPIES"

A floppy diskette is a circular disk with a magnetic surface. It is generally encased in a square plastic sleeve. This circular disk is used to store data and then, at a later date, data can be read from the disk and loaded into the computer. In some ways, it is similar to magnetic tape or a phonograph record.

NOT ALL FLOPPIES ARE CREATED EQUAL...

It is important to understand that floppies come in different sizes and types. There are two main sizes of floppy disks - 3½" & 5¼". 5¼" floppy disks use older technology and are being phased out.   Both size disks also come in **Double** and **High** density. For purposes of this class, we will be using floppies that are 3½" double sided/high density. What this means is that you will be able to read and write on both sides of the disk and the disk will be able to hold a lot of data, about 1.44 million characters or over 400 pages of typewritten material. This is the most commonly used type of disk.

Not all types and sizes of floppy disks will run on all computers. First, the disk drive that reads the floppy must be the right size and it must also be able to read the density of the disk. As a rule of thumb, higher density drives can read lower density disks, but lower density drives cannot read higher density disks.

THE FLOPPY DISK DRIVE - THE PART THAT BUZZES AND WHIRLS...

When you want to use a floppy disk, you place it face up, with the open notch on the right side, into the top slot of the computer. This slot is called the floppy disk drive. Whenever you read data to or from a floppy disk, the magnetic disk in the sleeve starts to spin. At the same time, read/write heads (similar to those of a tape recorder) scan the top and bottom of the disk for data. These read/write heads are on arms that move back and forth across the disk as it is spinning. If there is any data on the disk, eventually it will pass under (or over) the heads. If the data is appropriate, it will be read into the memory of the computer. Ahhh... memory! I will talk more about that later.

FORMATTING...   WHAT'S IT ALL ABOUT...

When you first buy a floppy (data) disk it is like a blank slate. Think of it as a blank sheet of paper. Since you are going to be writing data on this paper, the first thing you want to do is put some imaginary lines on it so that you will be able to store the data in appropriate places. The process of electronically writing these lines on the disk is called **FORMATTING**. These lines are called **Tracks** and **Sectors**... In case you really wanted to know, there are 80 tracks and 18 sectors on each side of a 3½" high density floppy disk

Formatting is like placing an electronic map on your disk so that the computer will be able to find your data when you retrieve a document. Formatting is the first thing that you want to do to all new data disks. A data disk will not work if it has not been formatted. It is also important to understand that generally you will only format a data disk one time. If you format a disk that has data already saved on it, all of the data on the disk will be erased - lost forever...Hyperspace! This can be very painful. You will be back to a point of having a blank disk with only imaginary lines. I will explain how to format a disk in the Lab section of the class.

THE WRITE PROTECTION NOTCH - JUST TO BE SAFE...

As you look at a 3½″ disk, there will be a notch (with a slider in it) cut out of the sleeve on the upper right corner. This is called the WRITE PROTECTION NOTCH. As long as the notch is covered, you will be able to: 1. Format the disk, 2. Save or write data to the disk, 3. Erase data from the disk and 4. Read data from the disk. However, if that notch is opened, you will only be able to read data from the disk. You will not be able to Format, Save or Erase data on the disk. (This is like removing the little tabs on the back of a cassette tape.) This Write Protection Notch is very important as there may be times when you want to make sure that you do not alter any of the documents on a particular disk.

PROPER DISKETTE STORAGE - DO NOT FOLD, SPINDLE OR MUTILATE...

A floppy disk can be your best friend or your worst enemy depending on how you treat it. To keep on the good side of your floppies you must obey the following rules... (You know, like never feeding them after midnight!):

1. Never fold, crease or bend a floppy disk.
2. Never touch the magnetic circular disk on the inside of the sleeve.
3. Keep your floppies out of direct sunlight and never let them get too hot or too cold.
4. Never let food or liquid of any type touches the floppy.
5. Never write on the sleeve of a floppy with anything harder than a soft felt tip pen.
6. Never allow a magnet to ever come close to a floppy.
7. A floppy disk may become damaged by passing through magnetic detection devices.
8. When not in use, always place your floppy disk in an enclosed case.

If you treat your floppies with respect they will be your friend for life. However, if you choose to abuse your floppies, they will lose your data, always at the most inopportune moment. Believe me, if abused, your floppies will always get the last laugh!

CD - ROM

CD - ROM stands for Compact Disk, Read-Only Memory. What this means is that one CD can store approximately 650MB of data or the equivalent of 451 3½" high density floppy disks. Now that is a lot of data! The problem is that this data is generally put on the disk at the factory. At present, the average person can read the data with their home computer but they cannot save data to this type of disk. However, in the not too distant future it looks like the cost of a read/write CD ROM drive will be within the reach of the average home PC user. Ahhh yes, technology marches on...

The surface of a CD is made up of tiny **Pits** and **Lands**. Pits are flat areas and reflect light while Lands are slightly curved and diffuse light. As the CD spins, a laser beam tracks across the surface and detects these various changes. Reflective areas cause electricity to flow in the computer and non-reflective areas restrict the flow of electricity. Thus, once again, we have the transmission of **Bits** of data... (0 or 1)!

The cost to manufacture both the CD and the drive has come down significantly over the past several years. Also, the speed of the drives has increased. For this reason, they are used to store large programs and they are very popular in the field of multimedia. They are pretty much standard equipment on a new computer system.

THE PRINTER
(or)
"HOW TO LAND A HIGH IMPACT, THERMAL, ELECTROSTATIC, LASER JET"

Printers are the primary method by which we get **Hard Copy** output from a computer system. **Hard Copy** means that the information is in a printed form that can be transported. The cost of a printer can range from under $100 to over $1,000,000! In fact, it is possible to spend more for the printer on a small computer system than for the actual computer. Generally speaking, the cost of a printer will go up with the speed and the quality of the print that it produces. The speed of a printer is measured in CPS (Characters/Second), LPM (Lines/Minute) or PPM (Pages/Minute). Faster printers are measured in Pages/Minute.

All printers can be grouped into two categories: 1) IMPACT & 2) NON-IMPACT. Impact printers operate like a typewriter. The image is made by a typeface or series of pins that press against an inked ribbon and thus leave the image of a typed character on the paper. One advantage of all impact printers is that they can use NCR (No Carbon Required) paper. This is a special type of paper that automatically makes multiple copies when you write on the first sheet. In the case of a non-impact printer, there are no type elements, pins or ribbons. The characters are formed by some means other than physically striking the paper. Non-impact printers are generally the printer of choice. This is because they are faster, quieter and generally produce a better print quality than impact printers.

IMPACT PRINTERS - A STRIKING IMAGE

A. DAISY-WHEEL PRINTERS (70 CPS):
This type of printer was designed after the concept of an original typewriter. It has a removable wheel with a set of spokes. Each spoke has a type element at the end. The wheel spins at a very high speed and a hammer fires at just the right instant. This pushes the type element up against the ribbon thus leaving the image of that character on the paper. These printers are generally less expensive and produce a high quality of **text** print. However, they are relatively loud and slow. They will not print graphics or color and they have a very limited ability to print different fonts and point sizes.

B. DOT-MATRIX PRINTERS (300 CPS):
At one time, this was the most popular printer on the market. The characters are formed by activating as series of pins which move forward, strike a ribbon and thus "create" the shape of letters on the paper. The characters are formed using the same principal as the lights on a basketball scoreboard. Generally, these printers have from 9 to 24 pins. They are, loud, relatively slow and have very limited ability to print in color. However, they are less expensive, do print graphics and through the use of software can change font and point size very easily.

C. BAND, DRUM & CHAIN PRINTERS (Up To 3,000 LPM)
These are very expensive, industrial, high volume, letter quality devices. There is little chance you will see them on a home personal computer system. They are limited to printing text material (no graphics) at **very** high speeds. They do not print in color and have very limited ability to change font and point size.

NON-IMPACT PRINTERS - THE ROAR OF SILENCE...

The quality of the output from laser and inkjet printers is measured in DPI (Dots Per Inch). The individual characters are formed by placing microscopic ink "dots" on the paper. The more of these dots per inch, the higher the quality of the output and of course, the higher the cost of the printer. For home use, the range is generally somewhere between 300 to 1,440 DPI.

A. THERMAL PRINTERS (150 CPS):

These printer use heat sensitive paper and a print head similar to that of a dot-matrix printer. However, the pins of the print head do not actually strike the paper. The pins become very hot and the process is essentially one of "burning" characters onto the paper. Thermal printers are generally less expensive. However, they are slow and you must use special heat sensitive paper. This can be a real disadvantage. While they can do graphics and change point size, they are noisy and will not print in color.

B. LASER PRINTERS (4 - 24 PPM):

This type of printer is one of the fastest growing in popularity. It combines the technology of an office copier with a computer printer. Inside the printer, a laser beam scans back and forth across a drum that has been given a positive charge. This beam actually "writes" the letters onto the drum in the form of a negative charge. The drum then rotates and picks up toner (positively charged) on the drum in the shape of the letters. The toner, in the shape of the letters, is transferred to the paper. The paper moves through the fusing area where the toner is literally melted to the paper. The result is a printer that is relatively inexpensive (starting at $400), produces high quality, quiet, fast, text and graphics output. Laser printers can give color output but they are very expensive ($3,000+).

C. INK-JET PRINTER (4 - 8 PPM):

This is perhaps the most popular type of printer on the market today. It works on the principle of "squirting" ink onto the paper. Ink, which is held in a chamber , is heated to 900° F. As the ink starts to boil, a bubble is formed. The bubble bursts and places a tiny dot on the page. These dots then make up the shapes of letters. While they are not very fast, they do put out very good quality and the cost is relatively low ($150+). A real advantage of this type of printer is that they will print in color at a very reasonable cost.

Before buying a printer you should ask yourself how you are going to use your computer and what you want your printer to be able to do. This handout should only serve as an overview of computer printers. There are many other technical questions that have not been addressed in this paper. Do not take the purchase of your printer lightly.

	PRINT QUALITY	COST	SPEED	NOISE	NCR	CHANGE FONTS	CHANGE POINT SIZE	PRINT COLOR	PRINT GRAPHICS
DAISY WHEEL	+	+	-	-	+	-	-	-	-
DOT MATRIX	+-	+	-	-	+	+	+	-	+
THERMAL	-	+	-	-	-	+	+	-	+
LASER	+	+-	+	+	-	+	+	+-	+
INK JET	+	+	+-	+	-	+	+	+	+

FONT SIZES

This is 1 pt.

This is 2pt.

This is 3 pt.

This is 4 pt.

This is 5 pt.

This is 10 pt.

This is 20pt.

This is 30 pt.

This is 40 pt.

This is 50 pt.

This is 60 pt.

This is 70 pt.

This is 80 pt.

This is 90 pt.

FONT STYLES

This is an example of "Albertus Extra Bold".

This is an example of "Arial".

This is an example of "Arial Black".

This is an example of "Arial Narrow".

This is an example of "Bauhaus 93".

This is an example of "Bazooka".

This is an example of "Braggadocio".

This is an example of "Britannic Bold".

This is an example of "*Brush Script MT*".

This is an example of "Caesar".

This is an example of "Century Gothic".

This is an example of "Courier".

This is an example of "CG Times".

This is an example of "Colonna MT".

This is an example of "Desdemona".

This is an example of "Footlight MT".

This is an example of "Garamond".

This is an example of "Haettenschweiler".

This is an example of "Impact".

This is an example of "Kino MT".

This is an example of "Marigold".

This is an example of "Playbill".

This is an example of "Times New Roman".

This is an example of "W i d e L a t i n".

EL CAMINO COLLEGE
EDUCATIONAL DEVELOPMENT 40
ASSISTIVE COMPUTER LITERACY

"HISTORY OF THE COMPUTER"
(or)
"BLAME IT ON THE ABACUS"

The development of the computer over the past 40 years has occurred at an astonishing rate. However, if you think about it, people have been recording and processing information for thousands of years. By 3,500 BC, Babylonian merchants were recording records on clay tablets and the abacus (which is still used today) is over 3,000 years old! The following is a brief history of the present day computer, highlighting some of its more distinguished milestones.

1642 -   Blaise Pascal, a French mathematician, developed the first mechanical calculating machine. While his principle was sound, the machinery of the day was not refined enough to support its development. Another reason why his invention was a financial failure was because clerks and accountants refused to use it, fearing it might do away with their jobs!

1801 -   Joseph Jacquard, a French weaver, invented the concept of punched cards to control his mechanical looms. The cards blocked certain threads from entering the loom and let other threads pass through to complete the weave. This tremendously speeded up the process of weaving cloth. Jacquard received considerable resistance from the industry as once again, people feared that they would lose their jobs. In fact he had threats on his life and several of his factories burned to the ground!

1812 -   Charles Babbage, an English Mathematician, took the basic concepts of Jacquard and tried to build some very sophisticated calculating machines. He used punched cards to store the programs. While his machines were totally mechanical, they had the basic components of today's computers: Input, Processing, Storage and Output. Even though his inventions were never put into mass production, he has gone down in history as the "Father of the Computer". His colleague, Ada, the Countess of Lovelace, developed many of the instructions for doing the computations on his machines. Her contributions should not be underestimated. For this reason, she has been remembered as the first computer programmer and a programming language, "ADA", has been named in her memory.

1887 -   Herman Hollerith developed a machine to read punched cards to assist the Federal Government with the census of 1890. It took 7 ½ years to tabulate the data from the census of 1880. Using punched cards and Hollerith's tabulating machine, it took only six weeks to tabulate the results of the census of 1890! Hollerith used metal rods to pass through the holes of the punched cards. This completed an electrical circuit which advanced a counter by one unit. Later, Hollerith founded the Tabulating Machine Company which went on to become Big Blue (IBM).

1944 -   With the support of IBM, a young Harvard Professor of mathematics, Howard Aiken, constructed the first electromechanical computer, the "Mark 1". It was eight feet high and 55 feet long. The modern age of the computer had begun.

FIRST GENERATION COMPUTERS: 1951 - 1959 (Vacuum Tubes)

The first UNIVAC (Universal Automatic Computer) became operational at the Census Bureau in 1951. Up to this point, computers were used for scientific or military applications. The UNIVAC broke this barrier. It made the computer available for business applications. It also did away with the punched card system dominated by IBM and stole a major share of the IBM market. The UNIVAC was made by a company that was later sold to Remington-Rand.

In 1956 IBM regained the market lead by introducing the 650 and 700 line of machines. These were business application computers and they were much more successful than ever dreamed.

SECOND GENERATION COMPUTERS : 1959 - 1964 (Transistors)

Second generation computers were marked by the use of transistors. They were smaller, needed no warm-up time, consumed less energy and were faster and more reliable than vacuum tubes. This generation also introduced higher level languages - FORTRAN and COBOL. These languages were more English-like, more powerful and easier to learn. During this time computers were really being used by larger businesses, universities and government organizations. They had not yet reached the general public.

THIRD GENERATION COMPUTERS: 1965 - 1970 (Integrated Circuits)

An integrated circuit is a complete electronic circuit on a small chip of silicon. These circuits are extremely reliable, compact, inexpensive and use very little power. In 1964 IBM introduced their 360 family of computers which made heavy use of these circuits. This revolutionized the computer industry and actually introduced the concept of the "minicomputer". This made the computer much more accessible to small businesses. This type of computer could also be used for both business and scientific applications.

FOURTH GENERATION COMPUTERS: 1971 - PRESENT (Microprocessors)

A microprocessor is really an entire computer on a single chip. This technology opened up the computing field for home use. Once again, the cost and size went down and the speed and reliability went up.

Some people seem to think that we are now starting the fifth generation of computers. This is the age of artificial intelligence, multitasking, networking and telecommunications. The technology is actually moving so fast that man is having a difficult time accepting the applications. Can man's mind and body keep up with the rapid technological change of our universe? In the final analysis, how this technology is used will be determined by you and me.

"THE BASICS OF THE EXPLORER"
(or)
"KEEPING YOUR DISKS ORGANIZED"

There may be times when you want to **Delete, Rename** or **Move** a **File** from one **Folder** to another. Before you do this, you need to understand how **Files** are organized in **Folders** on a floppy or hard disk.

Up to this point you have been saving all of your **Files** in the **Root Directory** of the floppy disk located in the **A** drive. The **Root Directory** is the original **Folder** that is created whenever you first format a disk The more **Files** you save, the more difficult it becomes keeping track of them. It is possible to group **Files** according to some common theme or subject matter. You do this by establishing separate **Folders**.

Think of your floppy or hard disk as a filing cabinet. You could throw all of your **Files** into the cabinet without any sense of organization. This is like putting all of your **Files** into the **Root Directory** of your hard or floppy disk. However, you could also set up separate **Folders** in your filing cabinet and then file your material according to subject matter. The **Windows Explorer** in Windows 95 enables you to electronically establish these separate **Folders** and manipulate your **Files** accordingly on your hard or floppy disk.

The organization of the **Root Directory**, **Folder**s and **Files** is called a **Directory Tree**. Think of the trunk of the tree as being the **Root Directory**. Branches leading off of the trunk could be considered separate **Folders**. It is even possible to establish **Folders** leading off of **Folders**. The sequence of one **Folder** leading to another, where a particular **File** is located is called the **Path** to that **File**.

Imagine you're taking three classes: **English, History**, and **Psychology**. You want to keep all your notes and work from these classes in a notebook. You could just dump everything in the notebook, but when you wanted to find a particular item, you'd have to dig through pages and pages till you found what you needed.

Wouldn't it be better to organize your papers and place them in separate **Folders**? You could have a **Folder** for **English**, a **Folder** for **History**, and another for **Psychology**. Then you could put all your **English** papers in the **English Folder**, all your **History** papers in the **History Folder**, and all your **Psychology** papers in the **Psychology Folder**. But why stop there? Let's get even more organized!

Let's say for each class you take a lot of **Classroom Notes**, **Textbook Notes**, and **Library Notes**. Why not make **Folders** for each of these? For example, inside the **English Folder** you could have a **Folder** called **Class Notes**, a **Folder** called **Textbook Notes**, and a **Folder** called **Library Notes**. You could then do the same for your other two classes.

Now it would be easy for you to find any particular **File**. If you needed to find one of your **English Class Notes**, you would open up the **English Folder**, then the **Class Notes Folder**, and then the specific **File** you needed.

Let's use this same organizational concept with your **Files** on your computer disk. Rather than dump all your work into the **Root Directory**, why not make **Folder**s for each of your classes. (We'll list the exact steps you do later.) The rules for naming **Folders** are the same as for **Files**. So let's call the **Folders English**, **History**, and **Psychology**. Inside each **Folder**, let's make additional **Folders** called **Classnotes, Booknotes,** and **Librarynotes**.

While **Folders** are a big help in organizing your floppy disks, they are essential to organizing a hard disk with the thousands of **Files** it can store. All of this is accomplished through the use of the **Explorer**.

TO OPEN THE EXPLORER AND CHOOSE THE 3½ FLOPPY USING THE M OUSE:

You access the **Explorer** with the mouse by selecting the **Start** button, selecting **Programs** and selecting **Windows Explorer**. The screen should now be split in half. On the left side is your **Directory Tree** (a listing of all **Drives** and **Folders**) and on the right side are the contents of the selected **Folder**. You can open the **3½ Floppy** by simply selecting it on the left side with the mouse pointer.

TO OPEN THE EXPLORER AND CHOOSE THE 3½ FLOPPY USING KEYSTROKES:

Press **Win+E** to activate the **Explorer**. (If you are using a screen reader, you should change the **View** of your files by pressing **Alt+V** and then **D** for **Details**.) To open the **3½ Floppy**, press **F4** and then **Up** or **Down arrow**. Once the **3½ Floppy** has been selected, press the **Enter** key to open it. At some point in the future, you may create a new **File** or **Folder**. To **Refresh** the display, press **F5**, which will place all **Folders** at the top of the screen followed by individual **Files**. As you move through the **Directory Tree** the backspace key will always move you up one level.

You should now have the **Explorer** opened on the screen.

The following are some basic processes that can be accomplished through the use of the **Explorer**. Ask a Lab Assistant for a blank 3½ Floppy Disk. Using the instructions below, **Format** the disk in drive **A** and give it a **Label Name** of **HTC**. To accomplish this, you would:

TO FORMAT A HIGH DENSITY DISK USING THE MOUSE:

1. With mouse pointer on **3½ Floppy** click on the **Right** mouse button.
2. Select **Format** from the **Context Menu** and a **Dialogue Box** will appear.
3. Give the disk a **Label Name** of **HTC** (an electronic name that is placed on the disk).
4. Select the **Start** button in the **Dialogue Box** to start the **Format** process.
5. After the disk has been **Formatted**, select the **Close** button to close the **Format Results Dialogue Box**.
6. Select the **Close** button to close the **Format Dialogue Box**.

TO FORMAT A HIGH DENSITY DISK USING KEYSTROKES:

1. Press the **Tab** key until you select the **3½ Floppy** in the **Tree view**.
2. Press the **Context Menu** key one time to bring up the **Context Menu**.
3. Press **M** to select **Format**.
4. If desired, give the disk a **Label** by pressing **Alt+L** and typing in the new label.
5. Press **Alt+S** to start the **Format** process.
6. After the disk has been **Formatted**, press **Escape** to close the **Format Results Dialogue Box**.
7. Press **Escape** to close the **Format Dialogue Box**.

The process of **Formatting** a disk, only establishes a **Root Directory**. The disk will not have any individual **Folders**. You, as the user of the disk will determine what **Folders** are needed. Let's go back to the original example of developing **Folders** for your three classes: **English**, **History** and **Psychology**. We will then create three **Folders**

(**Classnotes**, **Booknotes** and **Librarynotes**) inside each of the previously created **Folders**. If you look at the **Directory Tree** of your newly formatted floppy disk you will see that it only has the **Root Directory** with no separate Folders. Ask a Lab assistant for a **Windows Explorer Demo Disk**. Notice that it has many files placed in the **Root Directory**. Using the directions below, create separate **Folders** for your **English**, **History** and **Psychology** classes. Make sure the **Root Directory** of the **3½ Floppy** is selected when you create these additional Folders. To create these new **Folders** you would:

TO CREATE A NEW FILE FOLDER USING THE MOUSE:

1. Select the **3½ Floppy** drive.
2. Select **File** from the Menu Bar.
3. Select **New**.
4. Select **Folder**.
5. A new **Folder** will appear on the right side of the screen. Type in the new name of the **Folder** (**English**) and press the **Enter** key. You will now have a new (empty) **Folder**, in the **Root Directory** of the floppy disk located in drive **A**. Now create new **Folders** for both your **History** and **Psychology** classes.

TO CREATE A NEW FILE FOLDER USING KEYSTROKES:

1. Press the **Tab** key until you select the **3½ Floppy** in the **Tree View**.
2. Press **Alt+F** to open the **File** menu.
3. Press **W** to open the **New** menu.
4. Press the **Enter** key one time to create a new **Folder**.
5. Type in the name of the new **Folder** (**English**) and press the **Enter** key one time. You will now have a new (empty) **Folder** called **English** in the **Root Directory** of the floppy disk located in drive **A**.
6. Press **F5** to refresh the **View.** Now create new **Folders** for both your **History** and **Psychology** classes.

You should now have three class **Folders** in the **Root Directory**. You could now create three additional **Folders** (**Classnotes**, B**ooknotes** and **Librarynotes**) inside each of your class **Folders**. Using the directions below create three **Folder**s (**Classnotes**, **Booknotes**, and **Librarynotes**) for each of your classes. To accomplish this you would:

TO CREATE A FOLDER IN A FOLDER USING THE MOUSE:

1. Make sure the **English Folder** is open.
2. Select **File**.
3. Select **New**.
4. Select **Folder**.
5. Type in the new name of the **Folder** (**Classnotes**) and press the **Enter** key. This will create a **Folder** called **Classnotes** in the previously created **Folder** (**English**) in the **Root Directory** of the floppy disk in drive **A**. You should now create the other two **Folder**s (**Booknotes** and **Librarynotes**) inside the **English Folder** and then do the same for your **History** and **Psychology** classes.

TO CREATE A FOLDER IN A FOLDER USING KEYSTROKES:

1. Make sure that the **English Folder** is open.
   A. Press the **Tab** key until you select the **3½ Floppy** in the **Tree View**.
   B. Press the **Tab** key one more time to move the cursor to the right side of the screen.
   C. Press the **Arrow keys** to select the **English Folder** and press the **Enter** key to open it.
2. Press **Alt+F** to open the **File** menu.
3. Press **W** to open the **New** menu.

4. Press the **Enter** key to create a new **Folder**.

5. Type in the name of the new **Folder** (**Classnotes**) and press the **Enter** key. You will now have a new (empty) **Folder** called **Classnotes** inside the **English Folder** on the floppy disk located in drive **A**. You should now create the other two **Folder**s (**Booknotes** and **Librarynotes**) inside the **English Folder** and then do the same for your **History** and **Psychology** classes.

There may be times when you want to **Move** or **Copy** a **File** or **Folder** from one **Folder** to another. Using the directions below, **Move** all of your **Files** into the appropriate **Folders**. To accomplish this, you would:

TO MOVE OR COPY A FILE OR FOLDER USING THE MOUSE:

1. Select the **File** or **Folder** on the right side of the screen that you wish to move.
2. Select the **Cut** or **Copy** button from the **Standard Toolbar**.
3. Open the **Folder** you wish to move or copy it to.
4. Select the **Paste** button from the **Standard Toolbar**. Your file will now be in the new **Folder**. You can **Move** or **Copy** a **File** or **Folder** to another disk by selecting the destination disk on the left side of the screen.

TO MOVE OR COPY A FILE OR FOLDER USING KEYSTROKES:

1. Select the **File** or **Folder** on the right side of the screen that you wish to move.
2. Press **Ctrl+X** to **Cut** or **Ctrl+C** to **Copy** the **File** to the **Clipboard**.
3. Open the **Folder** you wish to **Move** or **Copy** the **File** to.
4. Press **Ctrl+V** to **Paste** the **File** into it's new location.

TO RENAME A FILE OR FOLDER USING THE MOUSE OR KEYSTROKES:

Renaming a **File** (or **Folder**) is really quite simple. You need to understand that when you **Rename** a **File**, you are not creating a **New File**… you are just giving a **New** name to an **Old File**. Using the directions below, **Rename** all of your **Classnotes Folders** to **Classroomnotes**. To accomplish this, you would:

1. Select the **File** on the right side of the screen to rename.
2. Press the **F2** key.
3. Type in the new name of the **File** (**Classroomnotes**) and press the **Enter** key. The computer will automatically save the **File** (or **Folder**) under the **New** name.

There may be times when your floppy disk crashes and you lose everything on the disk. This can ruin your whole day! For this reason it is a good idea to make a **Backup** of those floppy disks that you cannot afford to lose. It is important to understand that when you **Copy** a disk, you are making an <u>exact</u> duplicate of the entire disk… replacing everything on the destination disk.

The following directions assume that you are using the **A** drive to make a duplicate copy of a 3½ floppy disk. When you copy a disk, you will copy all **Files** and **Folder**s as they exist on the source disk. Using the directions below, get a blank disk from a Lab Assistant or use the one you created earlier and make a copy of your **Demo Disk**. To accomplish this you would:

TO COPY A DISK USING THE MOUSE:

1. Insert the **Source** disk in drive **A**. This is the original disk that you wish to copy.
2. **Right**-click on the **3½ Floppy** drive.
3. Select **Copy Disk…**.
4. A **Dialogue Box** will appear. Select the **Start** button.
5. The computer will start **Copying** the entire disk to the **C** drive. It will then pause and ask you to insert the **Destination** disk in the appropriate drive. After doing so, select the **OK** button. The computer will proceed to complete the disk copy process. When finished, the computer automatically removes the data from the **C** drive. Select **Close** to close the **Dialogue Box**.

TO COPY A DISK USING KEYSTROKES:

1. Insert the **Source** disk in drive **A**. This is the original disk that you wish to copy.
2. Press the **Tab** key until you select the **3½ Floppy** in the **Tree view**.
3. Press the **Context Menu** key.
4. Use the **Down arrow** to select **Copy Disk…** and then press the **Enter** key.
5. A **Dialogue Box** will appear. Press **Alt+S** to start the copy process.
6. The computer will start copying the disk to the **C** drive. It will then pause and ask you to insert the **Destination** disk in the appropriate drive. After doing so, press the **Enter** key. The computer will proceed to complete the disk copy process. When finished, the computer automatically removes the data from the **C** drive. Press **Alt+C** to close the **Dialogue Box**.

EL CAMINO COLLEGE
EDUCATIONAL DEVELOPMENT 40
ASSISTIVE COMPUTER LITERACY

"ACCESS TECHNOLOGIES"

KeyGuard and Windows 95 Keyboard   (800) 426-4832 $150
IBM Special Need Systems
1000 NW 51st Street
Boca Raton, FL 33432

Screen Magnification Program   (802) 362-3612 $595
ZoomText Xtra Level 2
Ai Squared
P.O. Box 669
Manchester Center, VT 05255

Single Switch Entry   (800) 869-8521 $700
EZ Keys - No Voice
Words+, Inc.
4001 5 Sierra Highway
Building B-145
Palmdale, CA 93550

Split Screen Text Reader   (888) 734 8439 $2,295
Viewpoint Super VGA - Computer
Pulse Data
4994 Austell Rd.
Austell, Georgia 30106

Voice Recognition System   (800) 825-8973 $225
Dragon NaturallySpeaking Preferred Edition
Dragon Systems
320 Nevada Street
Newton, Massachusetts 02160

Windows Screen Reading Program   (303) 795-6455 $795
JAWS for Windows
Beyond Sight, Inc.
743 1 5 . Lafayette Circle West
Littleton, CO 80122

Word Prediction Program   (800) 828-2600 $295
Microsystems Software Inc.
HandiWORD
600 Worcester Road
Framingham, MA 01701

"BIBLIOGRAPHY"

Brown, Carl, Computer Access in Higher Education for Students with Disabilities, Second Edition, Monterey, Brooks/Cole Publishing, c. 1987

Clark, Klooster & Allen, Computer Concepts: Systems, Applications and Design, Third Edition, Cincinnati, South-Western Educational Publishing, c. 1998

Cunningham, Carmela, Information Access and Adaptive Technology, Oryx Press, c 1997

Freed, Les, The History of the Computer, Emeryville, Ziff-Davis Press, c. 1995

Grace, Rich, Word Version 6 for Windows Quick Reference, Indianapolis, Que Corporation, c. 1995

Knorr, Eric, The PC Bible , Second Edition, Berkeley, Peachpit Press, c. 1995

Lewis, Rena B. Special Education Technology - Classroom Applications, Pacific Grove, Brooks/Cole Publishing, c. 1993

Long, Nancy & Larry, Computing, Englewood Cliffs, Prentice Hall, Inc., c. 1995

McWilliams, Peter A., Personal Computers and the Disabled, Garden City, Quantum Press, c. 1984

Parsons, June, Microsoft Office 97 Professional, Cambridge, Course Technology, c. 1998

Reisner, Trudi, Easy Microsoft Office 97 Indianapolis, QUE, Corporation, c. 1997

Schildt, Herbert, DOS Made Easy, Berkeley, Osborne McGraw Hill, c. 1989

Scott, Neil G., Computer Assistance for People with Disabilities, San Francisco, Desk Top Marketing Inc., c. 1987

Swanson, Marie L., Microsoft Word 6.0 for Windows, Illustrated, Cambridge, Course Technology, c. 1994

Weixel, Suzanne, Easy PCs, Fourth Edition, Indianapolis, QUE Corporation, c. 1995

White, Ron, How Computers Work, Second Edition, Emeryville, Ziff-Davis Press, c. 1995

EL CAMINO COLLEGE
EDUCATIONAL DEVELOPMENT 40/41

S F P   YR   ## ASSISTED COMPUTER LITERACY   **M T W T F**

● ● ● _____   **Machine Number**

● ● ● _____   **"INDIVIDUAL EDUCATIONAL PLAN"**   **Lab Day/Hours**

● ● ● _____

_____

● ● ● _____

_____

● ● ● _____

_____

NAME:_____   S.S.#:_____

PHONE:_____

GRADE: P/F____ LETTER____ DISABILITY:_____

SEIZURES:_____

FUNCTIONAL
LIMITATIONS:_____

_____
_____

PREVIOUS COMPUTER USE: YES___ NO___   LEVEL: 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10

IF YES -
HARDWARE:_____

SOFTWARE:_____
_____

KEYBOARD SKILLS: 1 -- 2 -- 3 -- 4 -- 5 -- 6 -- 7 -- 8 -- 9 -- 10

RECOMMENDED ACCESS TECHNOLOGIES

BRAILLE USER   _____

DRAGON DICTATE   _____

DRAGON NATURAL   _____

EZ KEYS   _____

HANDI WORD _____

JAWS   _____

KEYBOARD   _____

   REPEAT OFF   _____

   SLOW KEYS   _____

   STICKY KEYS   _____

MOUSE KEYS _____

VIEWPOINT _____

WiViK 38 _____

HEADMASTER _____

ZOOMTEXT _____

21" MONITOR _____

OTHER _____