Kate’s Computer 101 class

The computer is not your enemy! It is a tool, and like all tools, once you learn how to use it,. You will become a skilled and HAPPY user.

Let your computer help you.

How do I? … Well. I don’t know. Everyone’s computer is different; you have different software, hardware, maybe even languages. BUT, I do know how to ask.

So if you are having a problem with your computer or software, just ask.

Ask the computer using the help function (usually F1 key) and if you have Internet, even better. I have found that any problem I have ever had, has been experienced by someone else and most likely posted on the internet.

So when I have a problem, or something frustrates me (like I have to do a lot of steps for something and figure the computer should be doing most of this…)

I go to the internet and type into a search field like Google: How do I create a mass mailing list?, Word (add the name of your software program and it will bring back more focused answers.)

Most of the time, you will find the answer and maybe step-by-step instructions.

Menu, mouse or hot key. Your choice.

There are usually three ways to do things on your computer. You get to choose what is best for you.
The menu (using the mouse left button, select the function)
The contextual menu (using the mouse right button, it will show you the common functions available for the object you click on. Very useful if you aren’t sure of the software…)
Hot Keys. If I have to use a function more than 2x a day, I try to learn the hot key shortcut. This saves time, helps prevent carpal tunnel syndrome and best of all, makes you look really cool.

Kate’s tips for Windows

Care and Maintenance

Basic Care

• Avoid extremely hot, cold, humid, or dusty locations.
• Place computer on a sturdy desk.
• Allow adequate ventilation – do not block vents and do vacuum regularly. Avoid placing CPU on the floor since dust accumulates quickly.
• Make sure cables are not a trip hazard and are kept tightly connected. Always power off the computer before adjusting cables.
• Use a good surge protector.
• Do not smoke around the computer. The internal fan will pull the smoke through the computer, corrode any exposed metal contacts and leave a sticky residue on internal parts that will collect more dust.
• No food or drink near the computer—crumbs and spills can cause a lot of damage.

How to Start Windows in Safe Mode

Many times in order to remove a piece of spyware or for troubleshooting and diagnostic purposes, you'll have to start Windows in Safe Mode. While in Safe Mode, only specific programs and files needed to run the operating system are loaded. Some functions, such as connecting to the Internet, will not be active in Safe Mode and a standard video driver will be loaded causing a washed out look and a possible change in resolution. However, because just the essential programs and files are loaded in Safe Mode, this allows us to remove some spyware, adware, viruses and such that cannot be removed in Normal Mode. Follow the instructions here to Start Safe Mode for your specific version of Windows if it is different from Windows XP.

Windows XP

If Windows XP is the only operating system installed on your computer, boot into Safe Mode with these instructions.
If the computer is running, shut down Windows, and then turn off the power
Wait 30 seconds, and then turn the computer on.
Start tapping the F8 key. The Windows Advanced Options Menu appears. If you begin tapping the F8 key too soon, some computers display a "keyboard error" message. To resolve this, restart the computer and try again.
Ensure that the Safe mode option is selected. Press Enter. The computer then begins to start in Safe mode. When you are finished with all troubleshooting, close all programs and restart the computer as you normally would.

**How to Defragment a Disk on a Windows Computer**

When your computer writes information onto your hard drive, it does not always write information in the same location on the actual hardware. A section of a file can be written near the beginning of the disc, whereas the rest of that file could be written near the end. This causes programs to run slowly, as the computer spends time in retrieving these file clusters from all over the disc. Defragmenting your computer sorts all of your files [as well as free space] in an orderly manner, in effort to reduce loading time. **Here is how to do it.**

1. Start Windows in Safe Mode. This is not mandatory, but it helps to avoid complications from other programs that are running in the background. This also speeds up and streamlines the process.
2. Uninstall any programs you do not use or need. It is best to uninstall programs prior to a defragmentation, as the newly-acquired free space will generally be located all over the hard drive, thereby giving rise to fragmentation.
3. Make sure that all unnecessary programs are closed. If you have already started in Safe Mode, then this has already been done.
4. Cancel any programs that are scheduled to run. If you have not manually scheduled any programs to run, then skip this step.
5. Delete any temporary files. This is done by running Disk Cleanup. To run the program, go to: START -> Run, and enter cleanmgr in the window.
6. Disk Defragmenter with two hard drives. Run the Disk Defragmenter Program. Go to START -> Run, and enter dfrg.msc in the window. Alternatively, launch it by going to Start -> Programs (or All Programs) -> Accessories -> System Tools -> "Disk Defragmenter". A window similar to the one on the right should appear. Click Analyze so you can see what the damage is, and then look at the report. If you want to continue: Make sure that your desired drive is selected [C: being the default drive], and click on the Defragment button.
7. Wait until the process is complete. Sit back and relax as your computer organizes your fragmented files.

**System Crash or Freezes**

What if you are working on your computer and it just stops responding? Give it a few minutes and see if it will respond, especially if you hear noise sounding like the disk drives are working. If the computer still does not respond:

- Press Control, Alt, and Delete at the same time.
- Then click on Applications or Start Task Manager. This will list programs currently running on your computer. If you see “Not Responding” listed after a program name, click on the program name and End Task. If another box opens with a “Not Responding” message, select Close Immediately. When the program closes, open it again and continue working.
• If the program still will not close and the computer will not let you do anything else, try to restart the computer. In Windows XP or older computers, click on the Shut Down tab and Restart. In Vista, click on Start and arrow to Restart. Open the program again and continue working.
• If the computer still will not shut down, push and hold the computer power switch for about 5 seconds. Then wait at least 30 seconds and power the computer back on. Open the program again and continue working. (Remember: If you are unable to properly close your programs, you will lose unsaved data.)
This feature lists steps to troubleshoot specific situations.
• Click on Start
• Click on Help
• Pick a topic or ask for assistance.
• Click on the type of problem you are having and follow the steps indicated.

Use Toggle keys to alert Caps Lock

ToggleKeys is an accessibility feature designed for people who have vision impairment or cognitive disabilities. When ToggleKeys is turned on, your computer will provide sound cues when the locking keys (CAPS LOCK, NUM LOCK, or SCROLL LOCK) are pressed. A high sound plays when the keys are switched on and a low sound plays when they are switched off. Turn on ToggleKeys through Accessibility Options in Control Panel.

Searching for stuff on your computer

It is best if you have a general idea of where you put something. That way you don’t have to search the entire computer (which can take a long time…)
From the folder or area (desktop, C Drive) Hit CTRL + F
When the search window opens type in as many letters as you remember…(sometimes less is more because spelling counts)
If you know the file definitely starts with certain letters then use an asterisk at the end, indicating it starts with… ie: Recipes would look like: rec*
PC Parts

Making the most out of a personal computer (PC) can eliminate the clutter and confusion of everyday life. It can replace the daily planner, address book, phone book, calendar, notepad, files, folders, papers and more. You can use your PC to watch TV and DVDs, listen to music or the radio, organize your photographs, send mail and even call long distance. It is the goal of the Senior's Guide to Computers to show you how to do all of this with the least amount of strain and frustration and in plain English. Before we do that, let's compare the different parts of a personal computer to their real-life counterparts found in most offices.

CPU:

The Central Processing Unit (CPU) is the computer's brain. It is not as fast or as powerful as the human brain but it does something that the human brain cannot do. It blindly processes millions of instructions per second consistently and correctly and remembers the results. In this respect, the computer is a rather dumb machine. It processes all of this information but has no idea what it all means. The two major manufacturers of CPUs are Intel and Advanced Micro Devices (AMD). Both make excellent integrated circuits (chips) and feature outstanding performance.

Two Heads Are Better Than One

Many computers today are coming equipped with dual core CPUs. A dual core CPU refers to a CPU that includes two complete processors in a single integrated circuit (chip). Dual core processors are well-suited for multitasking environments because there are two complete execution cores (brains) instead of one.

Are two heads better than one? In this case, absolutely. Especially if you're doing extensive video work or playing demanding games. Do you really need a dual core CPU to perform the majority of PC tasks? No, probably not. It all depends on what you use your computer for.
RAM

Random Access Memory (RAM) refers to data storage that can be accessed in any order or randomly. RAM in a computer is considered main memory or the working area used for displaying and working with data...sort of like your desk. You open up all of your files, papers, reports, etc. and place them on your desk to work on. RAM performs the same function.

This type of memory comes in sticks and are about the size of a few sticks of gum. Most PCs have slots for adding and replacing RAM. RAM can be both written to and read from. RAM is erased when a computer is shut down effectively clearing your desk.

How much RAM do you need? Next to the CPU, RAM is the most important factor in computer performance. If you are running Windows XP, Microsoft recommends 128MB (megabytes) as the minimum RAM requirement. This is not really an adequate amount for Windows XP. For optimal performance with standard desktop applications, 512MB is recommended. If you are running Windows 95/98 (and you shouldn't be), you need a bare minimum of 128MB. Again, video-intensive work or gaming requires more than normal amounts of RAM perhaps 1-2GB (gigabytes).

What does all this byte stuff mean?

Here's the deal (and it applies to both RAM and hard drives):

The smallest unit of memory storage is called a BIT. A bit either contains a ONE or a ZERO. That's it.

Eight bits is one BYTE ("bite"). That's enough storage for about one letter of the alphabet.

1,024 bytes is one KILOBYTE (KB) or about one page of text.

1,024 kilobytes is one MEGABYTE (MB) or about 1,000 pages of text.

1,024 megabytes is one GIGABYTE (GB) or about 1,000,000 pages of text.

OK, so now everybody understands about bits and bytes, right? No? Hey, you know what? It doesn't matter! Forget about it. All you need to know is that you have enough MEGABYTES of RAM (which for Windows XP is 512 MB). Hard drive storage is measured in gigabytes (GB) and we'll discuss that in the next section.

Other types of computer memory that we don't really need to care about:

ROM stands for Read Only Memory*. This memory holds all the basic instructions the computer needs to do very simple stuff, such as making the letter "X" appear on the monitor when you press the "X" key. This memory cannot be changed, so losing power does not affect it.

CMOS stands for Complementary-symmetry/Metal-Oxide Semiconductor! Sounds impressive, huh? Don't even try to remember that. It stores information about your computer system as well as the current date and time. Like RAM, this memory needs electricity to keep working, but it only needs a very small amount. A small battery will keep it running for 4-5 years. If the CMOS battery dies, your computer may not start up correctly. You will have to have the battery
replaced, and, you will probably have to re-enter the setup information about your computer system. But by that time computers will probably cost about $9.99 so just buy a new one.

**HARD DRIVES**

Every item on your computer -- documents, photos, videos, music, email, programs, etc. -- is made up of one or more files. These files are always grouped in folders and make up your directory. Groups of folders, called sub-folders, are often filed together in another folder -- just like your filing cabinet. This "filing cabinet" on your computer is called a hard drive.

You can see how this looks on your hard drive in several ways. One way is to use your mouse and right-click on the START button in the lower left corner of your screen and then left-click on "Explore".

What you will see is a tree-like diagram similar to Figure 1-2. We have clicked on a folder called "Program Files" and then clicked on folders called "Adobe", "Acrobat 7.0", and finally "Acrobat". The left side of Explorer shows all the folders and the right side shows us the contents of the highlighted folder ("Acrobat"). As you can see, the contents of the "Acrobat" folder contains even more sub-folders and individual files.

Click here to see an animated demonstration of the "Explore" button. - The directory structure on your computer will probably look different but the Explore button works the same way.

The hard drive is a permanent storage device. It's called permanent because, unlike RAM, the data remains on the hard drive even if your computer is turned off. However, hard drives will eventually fail. That's why it's so important
that you make copies of your important data. This is called backing up and we have a whole section devoted to that topic.

PRINTERS

There are literally hundreds of printers available today. Unless you have a compelling need for a separate printer, fax machine, scanner and photocopier, I recommend one of the fine multi-function printers available. I personally use one of the Hewlett-Packard Officejet all-in-one printers. It serves as a printer, fax machine, scanner and photocopier. All you need is a PC and a phone line.

Some other reliable printer manufacturers are Canon, Epson and Lexmark.

For detailed information on printers, visit our hardware page.

KEYBOARD

Basic keyboard layouts haven't really changed in the last 100 years. If you "hunt-and-pecked" on a typewriter, then you'll "hunt-and-peck" on a computer keyboard. You'll be glad to know that this entire web site was created using only four fingers (some of them even mine).

For a detailed outline of the keyboard, visit our hardware page.

MODEM

A modem allows your computer to connect to another computer using the normal telephone line. (Usually, you can't use the telephone when the computer is using the line, or the other way around.) Modems can send data at up to 56,000 bits per second. That's more than 5,000 bytes (or letters) per second. Many people still connect to the Internet home through a modem using dial-up although this is not recommended. More and more people are now accessing the Internet via a high-speed broadband connection such as a cable modem or a Digital Subscriber Line (DSL). A broadband connection is necessary to fully enjoy all of the
multimedia features available on the Internet. DSL and cable modem service is available today at prices that are extremely competitive with dial-up service. File this under "who cares?" - Modem stands for Modulator-Demodulator.

What is Email?

Email is an electronic message sent from one computer to another. You can send or receive messages with attachments, such as photos, music, video and other documents. Email passes from one computer, known as a mail server, to another as it travels over the Internet. Once it arrives at the destination mail server, it's stored in an electronic mailbox until the recipient retrieves it. This whole process is extremely fast and lets you quickly communicate with people around the world at any time.

To receive email, you need an account on a mail server. You can retrieve your email from anywhere in the world, as long as you have access to the Internet. Your incoming email is sent from a Post Office Protocol (POP) server. The current standard for receiving email is POP3.

To send email, you need access to a mail server that forwards your mail. The standard protocol used for sending Internet email is called Simple Mail Transfer Protocol (SMTP). When you send an email, your computer sends it to an SMTP server. The server looks at the email address and then forwards it to the recipient's mail server, where it is stored until the addressee retrieves it. You can send email anywhere in the world to anyone who has an email address. All Internet Service Providers (ISPs) offer at least one email address with every account.

In addition to email messages, you can also attach documents, photos, audio, video and other software files -- as long as the person receiving the attachment has the software to open the file. Email attachments are made possible through the use of the Multi-purpose Internet Mail Extension (MIME) and other types of encoding.

What you need to know about all of the above techno-babble?

POP = Incoming mail
SMTP = Outgoing mail

Hoaxes, Spam and unpleasant pop ups

Issue 1: Hoaxes If it sounds alarming, urgent, or too good to be true, delete it at once.

One email hoax asks your help in transferring $65 million from Nigeria to the United States. Another claims that Congress is about to abolish the National Endowment for the Arts. Then there's the Neiman-Marcus cookie-recipe hoax, the Craig Shergold hoax (boy with leukemia wants postcards) and about 50,000 different virus hoaxes. None are true.

Before you react to any of these, first look it up at www.snopes.com, a massive, intelligent, fascinating compendium of urban legends -- including email hoaxes.

Issue 2: Spam

It's surprising how many people are unaware of the anti-junk-e-mail tools at their disposal. Spammers have automated software robots that scour every public Internet message and Web page, automatically recording e-mail addresses they find. That's why you should get yourself a second e-mail account (free at
Use it exclusively for online shopping, Web site and software registration, and newsgroup posting. (Reserve a separate e-mail account for person-to-person email.)

Never, ever respond to spam, even if the senders claim that they'll remove you from the list if you do so! All you'll accomplish is getting yourself flagged as a living, breathing sucker who actually reads the stuff. Your email address becomes that much more valuable to mailing-list sellers, and you'll double the amount of spam you get.

Instead, use your e-mail program's anti-spam tools. In Outlook XP, for example, you can add a junk sender to a list of blocked senders by rightclicking a spam message and, from the shortcut menu, choose Junk Email. In Outlook Express for Windows, highlight the message and, from the Message menu, choose Block Sender.

Apple Mail for Mac OS X offers the most ingenious solution of all -- a Bounce to Sender command. It flings the e-mail right back at the low-life who sent it to you, looking exactly as though your e-mail account has been deactivated. Your name gets dropped from that list and any lists generated from it.

Learn to use the E-Mail Rules or Message Rules feature in your e-mail program, too. It's a great way to flag certain subject lines ("X," "FREE!," "Make money salting crackers at home!") as junk mail -- and have them trashed before you even see them.

The Web is filled with other solutions -- spam-reporting services, autoblocking services, software programs -- but these simple tips can make a huge dent in your spam quota.

A Related Pet Peeve: Pop-Under Ads

It's not enough for advertisers to put their banner ads at the top of every Web page. Now we have to tolerate pop-up ads (in a separate window in front of our browser) and pop-under ads (which lurk behind the browser window). And yes, I'm aware that these ads pop up at NYTimes.com. I still find them annoying. The solution is easy enough: use antiad software like Guidescope (www.guidescope.com, free) they make surfing the Web noticeably faster (because you're not downloading ad graphics and animations).

Consider having two e-mail accounts. One for Family and Friends and one when surfing the net.

-- Taken from “From the Desk of David Pogue” The New York Times April 18, 2002

**Dealing with Email Attachments**

Attachments are files you include with an email message. Family photos are a very popular type of attachment. Follow these basic tips when dealing with attachments in an email message, no matter what email program you're using:

Do not open any attachment unless you know whom it's from and you were expecting it. Let the person know in advance when you send attachments. If you receive an attachment you weren't expecting, check to see if the person really sent it.

If you receive an email message with an attachment from someone you don't know, delete it immediately.

Keep your antivirus and antispyware software updated.

Use an email program with spam filtering built-in, such as Microsoft Outlook or Mozilla Thunderbird. Web based email services like Gmail (Google) and Yahoo! Mail also feature spam filtering.
Add a personal password to the text of your email message that your friends and family also know. If they send attachments and you see the password then you'll know it really came from someone you know.

**How to send attachments**

(documents, spreadsheets, photos or most types of files) by email (most email programs work the same way):
Open your email program, open a new message window and write your message.
Click on the attachment icon (the paper clip) or "Insert" the file by selecting from the drop down menu.
Browse your hard drive to locate the file you want to attach.
Click it to highlight the name, then click the Insert button.
An icon or message should appear showing that the file has been attached.
The attachment icon appears in the message.
Click the "SEND" button.

**Sending Digital Photos as Email Attachments**

So you've just used your new digital camera and you want to send the latest photos of your grand kids to Aunt Tilly.
Unfortunately, digital camera photos are extremely large in physical size. Of course, you want to take your enormous multi-megapixel files straight from the camera and attach them to an email. Poor Aunt Tilly may not appreciate this, especially if her ISP puts a limit on the size of email attachments she can receive. Many times, these large attachments will clog the inbox, making it impossible to access remaining mail.
Here are three possible solutions to this problem:

1. The most popular way is to reduce the size of copies your photos so that they will fit on most screens and take less time to download. Users of Windows XP have a way to do this built right into the operating system, and many photo cataloging programs, such as Picasa, have an email feature that will resize copies of the pictures before sending them.

Using Windows XP's automated function to resize and email a group of pictures without altering your originals:
Navigate to the folder containing the pictures you wish to email.
Select the file or group of files that you wish to email. Use Shift or Ctrl to select multiple files.
Right click on image and choose Send to - then Mail Recipient. The "Send Pictures by E-Mail" box will appear.
Select "Make all my pictures smaller".
Click "Show more options" It's at the lower left side of the box.
Choose a size for your pictures. The small option is suitable for most purposes and will give you the best reduction in file size.
Click "OK".
A status bar appears as Windows resizes the files, then a new message is opened in your default mail program with your pictures attached.
Fill in the recipients email address(es), add a personal message, and you're ready to send.

2. You could post your photos to a photo-sharing site. Posting photos to the web is a better solution if you have many photos or want to share the same photos with many people. Most photo-sharing sites will automatically reduce large images.

Flickr is one of the most popular photo-sharing sites. Flickr is owned by Yahoo and is free. When you have a free Flickr account, you can upload 100 MB worth of photos each calendar month and there is a limit on the total storage. For $24.95 a year Flickr provides unlimited uploads (10MB per photo), unlimited storage, permanent archiving of high-resolution original images, and ad-free browsing and sharing. Your photo albums can be private or public.

Another option for sharing your photos is built into Picasa and is called a web album. It takes only a few minutes to set up a free Picasa Web Album. Picasa gives you 250 megabytes of storage for free.

3. Post your photos on your own personal web site. This option requires the most technical skill. Check with your ISP to see if you already have personal Web space. Very often, your internet provider will give you 10 - 25 megabytes of web space included with your account. All you have to do is follow the directions your ISP should have provided you for uploading your photo gallery to the internet. Then just give Aunt Tilly the web address (provided by your ISP) of your photo gallery and she can see them whenever she wants.

Web-based Email

Web-based email is stored remotely on a mail server, which means that it is accessible anywhere there is an Internet connection and a web browser.

Advantages of Web-based Email

Centralized maintenance of the email program
Backups, upgrades and security fixes are done automatically.
Many web-based email providers offer spam and virus prevention.

Disadvantages of Web-based Email
The user must stay online to read and write email.
The user cannot keep the messages on their local hard drive.
Web-based email accounts are often targets of spam.
Web-based email accounts can be set up simply and quickly and can provide a degree of anonymity. The ability to use it anywhere means it is harder to trace the individual who uses it.

**Popular Web-based Email Providers**

**Gmail (Google)**
FREE
Gmail offers 2 gigabytes of online storage. Free Post Office Protocol (POP) access and sending from any address. Sorting, searching and tagging let you easily find and organize emails. For security purposes, Gmail requires a mobile phone to sign up.

**Yahoo! Mail**
FREE
Yahoo! Mail provides a free 1 gigabyte online email account. You can turn off automatic downloading of remote images for enhanced security. Yahoo! Mail offers mail filters and views, message flags and powerful mail search across folders. PhotoMail, integrating Yahoo! Photos with Yahoo! Mail, makes it easy to upload and share photos.

**MSN Hotmail**
FREE
MSN Hotmail comes with only 250 megabytes of online storage and lacks POP access. Secure messaging is not supported. Email management as well as spam filtering are not up to par.

What Is The Internet?
The Internet, also known as "the Net," is a worldwide system of computer networks in which users at any one computer can get data from any other computer. It was conceived by the Advanced Research Projects Agency (ARPA) of the U.S. government in 1969 and was first known as the ARPANET. The original aim was to create a network that would allow users of a computer at one university to be able to communicate with computers at other universities. A side benefit of ARPANET's design was that, because messages could be sent in more than one direction, the network could continue to function even if parts of it were destroyed in the event of a military attack or other disaster. Luckily, we've never had to test if it works.

Today, the Internet is self-sustaining and is used by hundreds of millions of people worldwide. For many Internet users, email has replaced the Post Office for short messages. You can also carry on live conversations with other computer users using Internet Chat. Currently, Internet telephone hardware and software allow real-time voice conversations (VOIP) including free long distance for voice calls between two computers. The most widely used part of the Internet is the World Wide Web ("the Web") developed by Tim Berners-Lee. On most web sites, certain words or phrases appear in text of a different color than the rest and sometimes also underlined. When you point to one of these words or phrases by clicking the left button of your mouse, you will be transferred to the page that is associated with this word or phrase. These are called hyperlinks or links. Sometimes
there are buttons, images, or portions of images that can be "clicked". If you move the pointer over a spot on a web site and the pointer changes into a hand, this indicates that you can click it and be transferred to another site.

With the web, you have access to millions of pages of information. Web browsing is done with a web browser. Currently, the most popular web browsers are Microsoft Internet Explorer and Mozilla Firefox. Another excellent alternative is Opera. Depending on your connection speed, browsers can support such advanced features as animation, video, sound, and music.

By the way, all of these browsers can be downloaded absolutely free.

**Internet**

**History of the Internet**

The Internet was designed during the Cold War to prevent a single Nuclear strike from disabling all U.S. military computers and grew into a super network interconnecting computers at universities, government and military offices, and research centers around the world. A system of advanced protocols tell these computers how to locate and exchange data with one another, passing information from computer to computer as the system seeking information reaches the system that houses the desired data. Packets of information are detoured around non operative systems, if necessary, until the information finds its way to the proper destination. For example, a simple Email message could travel from Chicago in several packets each traveling a different electronic route, until they reach their destination in Minneapolis and they are reassembled into a single message.

The World Wide Web was invented by Tim Berners-Lee and his associates at the CERN Research Center, a physics laboratory in Switzerland, in 1989. Berners-Lee invented a series of communications protocols that would present information in documents that could be linked to other documents and stored on computers through the Internet. People could access these documents or pages, through a single software program, called a browser. Most PC users use Internet Explorer, Mac users mostly use Safari.

The Internet is made up of host computers linked together by a dedicated broadband telecommunications connection known as the backbone. The connection is dedicated, meaning it is always open or active. One example would be if you took a telephone off the hook, made a call and never hung up on that call. The connection is broadband in that it can transmit large amounts of data simultaneously. Computers communicate over the network using the same language. As the packets of information travel across the Internet, routers through the network check the addresses of data packages and determine the best route to send them to their destinations. A web document resides on a host or server. Each host has a unique address that tells other computers on the Internet how to find it. Web documents are created in a language called HTML that tell the browser, how that document is supposed to appear. --From How the World Wide Web Works by Chris Shipley

The Internet is the operating system of computers and connections that contains the World Wide Web database. You use a Browser like Internet Explorer to request data from the World Wide Web. Find Information on the Internet

1. Search Engines
2. Website Addresses

A typical web page includes: Web pages range from quite simple, text-only, static documents to sites containing animation, sound, and interactive elements. Many web pages allow you to download pictures, sounds, and video clips as well as files and software, and the most contain links to related pages on the same or other Websites. Many pages also contain E-mail addresses, enabling you to contact the producer of the page.

How to Identify A Website

**URL** stands for Uniform Resource Locator or unique address. Ie http://www.google.com

- **http://** = hypertext transfer protocol or a method of writing content for the Internet
- **www** = indicates site is on the World Wide Web.
- **google** = is the host or domain name.

**Last three Letters** shows the type of websites available. For example:

- **com** commercial
- **edu** education
- **org** organization
- **ca** Canada
- **gov** government
- **mil** military

Be Careful when you enter web addresses manually; Web address never contain spaces and are sensitive to punctuation and case. Some contain capital letters, but they are usually lower case.

The Internet Explorer Window

**The Title Bar** shows the title of the current Web page. It also tells you whether you are connected to Internet or working offline.

**The Menu Bar** gives you access to all Explorer’s features.

The Toolbar can be customized to show the features most often used.

**The Address Bar** is where you type a web site’s address.

The Main Browsing Window is the area where you will see the site you are visiting.

**The Go Button** takes you to the address in the Address Bar.

**The Status Bar** shows activity.

**The Connectivity Icon** is displayed if you are working online.

**The Scroll Box & Arrows** move the page in the browsing window up & down.
Search Engines

Google

There are literally hundreds of search engines on the internet. However, there is only one that I use and that you will ever need....Google.

Google is a crawler-based engine, meaning that it has software designed to "crawl" the information on the Internet and add it to its database. Google has the best reputation for relevant and thorough search results.

Google's home page is clean and simple. There is more than one option on Google's home page. You can search for web sites, images, comments in discussion groups, news, shopping sites and more. Figure I-1 shows the Google home page followed by a description of the various search tools.

Google Home Page

Web - The default search engine.
Images - Searches for images, maps, graphics, photos, or drawings.
Video - Searches for short video files on the Internet.
News - Searches for information gathered from thousands of news sources worldwide.
Maps - An interactive map tool featuring driving directions.

More - Additional search tools including:
Books - If you're looking for text from a specific book, type in the name of the book (in quotes), or if you're looking for books about a particular subject, type in "books about xxx". Google will return results that contain content either in the book itself, and will offer links to Book Results at the top of the search page.
Froogle - Searches for products for sale online.
Groups - Searches for information, opinions, and recommendations from user groups.

Even more - dozens of additional search tools.

"I'm Feeling Lucky" - This button takes you instantly to the first search result returned for any query. For instance, if I type in peanut butter I go straight to peanutbutterlovers.com. It's basically a shortcut so you can bypass the search engine results page.

There's even a Google Accessible Web Search for the Visually Impaired.
How to Search

Phrases should be placed inside “quotation marks”. Ie. “high blood pressure”

**Use AND or + to require words.** Ie twins AND baseball; ie +twins +baseball

**Use NOT or AND NOT or – to exclude words.** Ie twins NOT baseball; ie twins AND NOT baseball; twins –baseball

**Use OR to broaden coverage and indicate that either term is acceptable.** (this is where synonyms and variant spellings are important) ie automobiles OR cars; cats OR felines; woman OR women; Some search engines allow you to use wildcards.

**Use the wildcard symbol * to truncate a word.** This is also a technique that allows for plural forms or variant spellings of a word. Ie automobile* ( will find automobile and automobiles); child* (will find child, childless, children, etc)

**Exclude unwanted results.** If you want to narrow down your searches, place a “-” (minus sign) in front of words you want to avoid. For example, if you're searching for "three stooges films" but don't want any films starring Shemp, you would type in three stooges films -shemp.

Other Google Tools

- **Google Calculator** - Use Google’s calculator by just typing in whatever calculation you'd like in the search bar. For example: a gallon in pints or 112.3 + 55.6.
- **Google Definitions** - There are two ways to get definitions from Google. If you type "define:cholesterol" (with the colon), you'll get a page full of definitions. If you type "define cholesterol" (without the colon), you'll get a list of web sites that contain definitions of the word.

**Google Catalogs** - Search online catalogs.
**Google Finance** - Business info, news, and interactive charts.

Other search shortcuts:

- **Phone number:** (enter name and location) "phonebook: John Smith NJ"
- **movie:** (search for showtimes - enter title and zip code) "movie:superman returns 08902"
- **stocks:** (get a stock quote) "stocks:ibm"
- **weather:** (get local weather - enter zip code) "weather:08902"

Online Shopping

Shopping on the Internet has never been easier or safer if you just follow a few simple safety rules. The vast majority of online vendors are reputable and secure. If you don't feel comfortable with a vendor, just take your business elsewhere. Also, you can shop whenever you feel like. Can't sleep? Where else could you have a cup of tea and shop in your pajamas?

Here's a few tips to help make your online shopping experience free of headaches:
Do not visit shady looking web sites. You'll know them when you see them. Would you shop at "Uncle Bruno's Fell Off the Truck Discount House of Electronics"?

Shop online from reputable companies only. It's safe to use your credit card to pay for purchases online at any store as long as when you check out, you see a little gold lock in the lower right corner of your browser. This means that the transaction is secure. If you don't see this lock -- DO NOT CONTINUE WITH THE PURCHASE! The lock is not just a picture. Click on it to see details of the site's security. This is important because some fraudulent web sites will imitate the lock icon of your browser.

It's also a good idea to use the same credit card for all of your online shopping. If there is ever a problem, all you have to do is cancel that one card.

It is actually safer to shop online with a credit card than at a real store? Here's why: When you use your credit card at a secure site and you see the little gold lock in the lower right corner, your credit card information is sent to the store using a Secure Sockets Layer (SSL). In simple terms, this means your data is scrambled using really powerful encryption which is the process of hiding information to make it unreadable. Even hackers cannot break this encryption.

Think about what happens when you use your credit card at an actual store:
You hand your credit card to a complete stranger.
They scan it or enter the number into a computer and it is displayed on a screen for all to see.
You sign the receipt with your credit card number on it and then there is a paper copy laying around.
Pretty scary, huh?

Your web browser (Internet Explorer, Firefox or Opera) makes comparison shopping simple. Use a different tab on your browser for each store. Then you can easily switch back and forth to compare similar items.
Be aware of shipping charges. They can be different for every vendor. Very often, you can even find free shipping.
The search for bargains is part of the fun!

DO NOT GIVE OUT PERSONAL INFORMATION LIKE SOCIAL SECURITY NUMBERS, BANK ACCOUNT NUMBERS OR CREDIT CARD NUMBERS (unless you're making a secure purchase) ON THE INTERNET!!! Any web site or email asking you for this information is trying to rip you off!
Always, always, always use a credit card only to pay for your purchases! Never allow transfers of funds from your checking or savings accounts.

What is eBay?
Simply put, eBay is an electronic "flea market". eBay is a safe online marketplace where anyone can buy and sell goods and services. Sellers pay a small fee plus a percentage to eBay. Buyers can use eBay free of charge. There are rules and
penalties in place to protect users from anyone who abuses the system.

Some facts about eBay:

eBay is international.

The variety and quantity of items is staggering. There are more than 16 million items for sale.

Items can be sold at auction (buyers bid against each other), or at a fixed price. The sellers decide how they want to sell an item.

Buyers do not get to actually see the item prior to purchase, but there are several guarantees in place to protect the buyer.

eBay runs various computer programs to reduce electronic dishonesty.

There is a full time staff dedicated to promoting fairness and impartiality.

There is a system called "feedback" used to protect both buyers and sellers. Usually, the more dependable buyers and sellers will have more positive feedback than negative.

eBay offers a professional payment service called PayPal in to ensure safe payment between parties. See my article on PayPal on this page for more information.

A Safety Guide to eBay

Always carefully read the details of the auction before placing a bid to make sure you know exactly what you're bidding on. Things to be aware of:

Payment method

Shipping and handling costs. Some sellers deliberately list an expensive item for a cheap price to fool the new buyer. Overpriced shipping and handling charges is where they make up the difference. This trick is within eBay policy and punishes the user who doesn't read the full ad.

When item will be mailed out

Other costs or conditions

For clothing, make sure to note the size, color, fabric, or damage especially if the item is "used" or "vintage".

If there is anything you are not quite sure of, get more information from the eBay seller before you bid. You can do it by clicking "Ask seller a question". For a comprehensive list of what can, or cannot, be listed on eBay visit the "prohibited items" page. Remember, if the item is confiscated by customs, you are not entitled to a refund.

Leave positive feedback whenever you are satisfied with the transaction. Always think hard before leaving negative feedback. Feedback is forever!

Don't engage in bidding wars. Bidding wars are only good for the seller. New eBay users often get caught up in bidding wars because they have yet to learn when to keep bidding, and when to stop. An experienced user will often outbid the novices by mere pennies a seconds before the auction closes. You need to show restraint and patience and bid near the end of the auction.

There is a legitimate trick calling "sniping". Sniping is the practice of bidding in the last few seconds of an auction in order to prevent other bidders from outbidding you. Many smart bidders simply bid the maximum amount they are
willing to spend on an item and don’t worry about it. You can snipe manually but smart bidders use automatic sniping software. One such free program is Prospector Lite.

Don't bid over your head. Bidding can become addictive. Be aware of how much money you can afford to spend on that special item.

What is PayPal?

PayPal is a popular payment service owned by eBay and is used for online purchasing. 95% of eBay purchases are paid by PayPal. PayPal allows buyers to send money to sellers using their email addresses. The parties involved in the transaction NEVER see each other's credit card or bank information. PayPal acts as the middleman to hold the money. There are many safeguards and procedures that allow buyers and sellers to trust PayPal with their credit card and bank information. PayPal keeps that information secret. This way strangers can safely send money to each other through PayPal.

The only requirements for a PayPal account are a valid email address and a valid credit card or bank account. PayPal is free for buyers. Once a buyer sets up a PayPal account it costs nothing to send money to other PayPal users. The funds are withdrawn from the user's credit card or bank account. PayPal does not charge buyers to send money.

If you want to shop on eBay, it is necessary that you have a PayPal account because 95% of eBay sellers choose PayPal as their method of choice for taking payments. Since eBay owns PayPal, eBay has a stake in keeping PayPal stable and reliable.

A Safety Guide to PayPal

PayPal has designed its system so errors and fraud are kept to a bare minimum. PayPal guarantees 100% protection against unauthorized payments from your account. Every transaction is confirmed by email.

eBay purchases can be insured up to $1,000 through PayPal.

NEVER allow PayPal to transfer funds from your bank account as a method of payment. Even though the transaction itself is secure, if you have a problem with the purchased item it will be very difficult to get your bank to void the transaction. ALWAYS have PayPal use the credit card you signed up with as the method of payment. It is much easier to have your credit card company dispute a charge.

Online Photo Sharing

You can post your photos to several photo-sharing sites for free. Posting photos to the web is a good solution if you have many photos or want to share the same photos with many people. Most photo-sharing sites will automatically
reduce large images.

Flickr is one of the most popular photo-sharing sites. Flickr is owned by Yahoo and offers a limited free account. The free Flickr account lets you upload 100 MB worth of photos each calendar month and there is a limit on the total storage. For $24.95 a year Flickr provides unlimited uploads (10MB per photo), unlimited storage, permanent archiving of high-resolution original images, and ad-free browsing and sharing. Your photo albums can be private or public.

Another option for sharing your photos online is built into Picasa and is called a web album. It takes only a few minutes to set up a free Picasa Web Album. Picasa gives you 250 megabytes of storage for free. Check out my Van Gogh Gallery to see what a web gallery looks like.

Additional web storage can be purchased.

Windows Update

Microsoft Update is a web site for updating Microsoft Windows operating systems. It is a location for downloading critical updates, service packs, security fixes, patches and free upgrades. Most updates and patches are available once a month on Microsoft Update. Updates can always be downloaded manually. The Microsoft Update web site requires Internet Explorer and the ActiveX control. It is not compatible with other web browsers such as Mozilla Firefox or Opera without installing specialized plug-ins. As of July 2005, Windows Update requires Windows Genuine Advantage to be installed for users updating any version of Windows XP.

Keeping your Windows operating system up to date is not optional. As soon as patches and fixes are posted to Windows Update, hackers and other bad guys start writing bugs and viruses to take advantage of the problem. The easiest way to protect your system is to turn on Automatic Updates.

Automatic Updates

Windows can keep your computer up to date automatically with the latest updates. You do not need to search for critical updates because Windows delivers them directly to your computer. Windows recognizes when you are online and uses your Internet connection to search for downloads from the Windows Update Web site. An icon appears in the notification area each time new updates are available.

How to Turn On Automatic Updates:

1. Right-click on "My Computer".
2. Left-click on "Properties".
3. Left-click on the "Automatic Updates" tab.
4. Select "Automatic (recommended)".
5. Select "Every Day".
Select a time when your computer will be on and online.  
Left-click on "OK". 
Just set it and forget it. Occasionally, Windows will ask you to restart your computer after an update. You can restart at your convenience -- just make sure to save any data you're working on.

**Computer Security**

**Anti-Virus Software**

A computer virus is a computer program that spreads by inserting copies of itself into other executable code or documents. Viruses are one of the several types of malicious software. The term "virus" often refers to worms, trojan horses and other sorts of malware as well. Viruses can be intentionally destructive or can be fairly benign or merely annoying. The major effect of viruses is their uncontrolled self-reproduction, which wastes computer resources. Included in the many types of viruses are:

**Trojan horses**

A Trojan horse is a computer program that pretends to do one thing (like claim to be a picture) but actually does damage when one starts it (it can completely erase one's files). Trojan horses cannot replicate automatically.

**Worms**

A worm is software that uses computer networks and security flaws to create copies of itself. It replicates itself to new computers using the flaws and then begins scanning and replicating again.

**Email viruses**

An email virus will use an email message as transportation, and will copy itself by automatically mailing itself to hundreds of people in the victim's address book. 
Anti-virus software is necessary to help keep your system secure. All anti-virus software provides two types of protection: 
Real-time protection that monitors all computer traffic on your system and attempts to stop virus attacks as they happen. You should not run more than one anti-virus program for real-time protection at a time.

Runs complete scans of your system to find and remove any virus activity you may already have. These scans can be started manually but the most common choice is to set the anti-virus software to run the scans automatically at specified intervals. I recommend at least one complete scan per week. You can run as many anti-virus scans as you wish using various programs.
There are many anti-virus programs available ranging from expensive to free. Here is a brief overview of the most popular and some recommendations:

**AVG Free Version**

FREE

The old saying that "you get what you pay for" does not apply to the AVG anti-virus program. I have used AVG for over a year and it was very effective. The first time you run AVG, it checks for updates and creates a rescue diskette for recovery if a virus renders your computer non-bootable. AVG's Control Center lets you set the program's modules. AVG works with Outlook to scan incoming and outgoing email.

**Norton Anti-Virus/Norton Internet Security**

I do not recommend any of the Norton products. Norton uses a lot of your system resources, bogs down your RAM (memory) and causes your system to run slower. The following web site, "What Slows Windows Down?", shows that Norton Internet Security is the number one cause of system slowdowns and causes a 58% system delay on your system. In addition, since Norton is the most widely used anti-virus, hackers tend to target PCs with that software installed.

**McAfee Internet Security Suite**

McAfee also uses a lot of your system resources and causes your system to run slower. "What Slows Windows Down?", shows that McAfee Internet Security Suite is also one of the largest causes of system slowdowns and causes a 12% system delay on your system.

**BitDefender**

This is the anti-virus program I use at the moment and recommend it highly. If you're going to pay for an anti-software program, this is among the best. According to "What Slows Windows Down?", BitDefender only uses 4% of your system resources. BitDefender Internet Security is a full security suite with spyware and anti-virus protection and the firewall protects against outside attacks. It features a spam filter that watches for phishing attacks. It scans all or part of a system on demand and can run multiple scheduled scans at intervals ranging from hours to years. Its real-time protection eliminates most viruses the moment they appear. By default it scans accessed files, incoming and outgoing email, and downloaded files.

**NOD32**

NOD32 is an effective anti-virus system that handles file scanning, email scanning and real-time protection. The program's many options may be confusing for the novice user. It is fairly successful at preventing installation of spyware.

**Free Online Virus Scans**

The following web sites offer free online virus scans. This could come in handy if a nasty bug renders your own anti-virus software useless. These online scanners must be run on the Internet Explorer browser.

- **BitDefender Online Scanner**
- **F-Secure Online Scanner**
- **Panda Activescan**
- **Trend Micro Housecall**
Anti-Spyware Software

What is spyware? -- Spyware is software that performs actions such as advertising, collecting personal data, or changing the configuration of your computer, usually without obtaining your consent. Spyware that displays advertisements and tracks your personal information is known as adware. This does not mean that all software which provides ads or tracks your online activities is bad. For example, you might sign up for free online email but agree to receive targeted ads in exchange for the service. You may have decided that it is a fair tradeoff. You might also agree to let the company track your online activities to determine which ads to show you.

Other kinds of spyware, known as malware, make changes to your system that can be annoying and can cause your computer to slow down or crash. Programs known as browser hijackers can change your web browser's home page or search page, or add components to your browser you don't need or want. These programs also make it very difficult for you to change your settings back to the way you originally had them.

There are a number of ways spyware can get on your system. A common trick is to covertly install the software during the installation of other software. Many times misleading pop-up ads trick you into clicking on them and then spyware is installed. Whenever you are installing something on your computer, make sure you carefully read all disclosures, including the license agreement and privacy statement. Sometimes the inclusion of unwanted software in a given software installation is documented, but it may appear at the end of a license agreement or privacy statement.

Spyware also includes such nasties as:

**Key loggers** - Sometimes called a keystroke logger, key logger, or system monitor, is a hardware device or small program that monitors each keystroke a user types on a specific computer's keyboard.

**Root kit** - A rootkit is a collection of programs that enable administrator-level access to a computer or computer network. Typically, a cracker installs a rootkit on a computer after first obtaining user-level access, either by exploiting a known vulnerability or cracking a password. Once the rootkit is installed, it allows the attacker to mask intrusion and gain root or privileged access to the computer and, possibly, other machines on the network.

Anti-spyware software is necessary to help keep your system clean. Some anti-spyware programs provide two types of protection:

Real-time protection that monitors all computer traffic on your system and attempts to stop spyware attacks as they happen. You should not run more than one anti-spyware program for real-time protection at a time.

Runs complete scans of your system to find and remove any spyware programs you may already have. These scans can be started manually but the most common choice is to set the anti-spyware software to run the scans automatically at specified intervals. I recommend at least one complete scan per week. You can run as many anti-spyware scans as you wish using various programs.

Many anti-spyware programs perform scans only and do not offer real-time protection. Most of these types of anti-spyware software are available free of charge. Both types of software are reviewed below:

Anti-Spyware software that provide system scans and real-time protection:
**Windows Defender**
FREE
You just can't beat the price. You can schedule automatic scans and choose whether to have Defender automatically apply the default action for each threat found. It's not as thorough as Spyware Doctor or SpySweeper but it will protect you from the majority of spyware.

**Spyware Doctor**
This is the software I use for real-time protection and also automated scanning. Spyware Doctor's Site Guard has pops up a warning any time you're about to surf to a site known to host bad stuff. You can still proceed, but at least you've been warned. IM Guard extends that protection to scan instant message conversations. The feature works with Windows Messenger and MSN Messenger only. Startup Guard blocks malware that tries to launch at start-up and Browser Guard keeps malicious add-ons out of Internet Explorer. The protection squad also includes Keylogger Guard, which blocks keystroke logging; Network Guard, which protects important network settings; and Immunizer, a module that whacks all malicious ActiveX threats Spyware Doctor knows about. Possibly the most potent is Process Guard, which kills spyware processes and prevents them from launching.

**SpySweeper**
It's a coin toss between SpySweeper and Spyware Doctor. You can't go wrong with either of them. Spy Sweeper's various shields provide active protection to keep spyware from invading your system including the Keylogger Shield, which detects programs that monitor and record your passwords and other keystrokes. Automated scanning is also included.

Anti-spyware software that perform system scans only:

**Spybot - Search and Destroy**
FREE
Click on "Search for Updates".
If it finds updates, check all of them and then click on "Download Updates".
Click on "Immunize" on the left menu.
If a message pops up that says "Please immunize" at the end then click on "Immunize" on the top left (next to green plus sign).
Click on "Search & Destroy" on the left menu.
Click on "Search for Problems".
When it's done, click on "Fix selected problems".

**AdAware**
FREE
Click on "Check for updates now" on the lower right.
Click "Connect".
If new definitions are available, click "OK".
When it's done click "Finish".
Click "Start" to begin scan.
Select "Full system scan". Click on "Next".
When it's done, it will make a really obnoxious noise. You may want to turn your sound down. Click on "Next".
Check the items to remove (probably all of them).
Click "Next" then "OK".

Spyware Blaster
FREE
Click on "Download latest protection updates" at the bottom.
Click on the "Check for updates" button at the bottom.
If it says no updates are available, you're done.
If updates are available, download them and then click on "Enable All Protection" after updates are downloaded.

Free Online Spyware Scans
The following web sites offer free online spyware scans. This could come in handy if a nasty bug renders your system unusable. These online scanners must be run on the Internet Explorer browser.

Pest Patrol
SpySweeper
Trend Micro

Software Firewalls
A firewall is designed to prevent unauthorized Internet users from accessing your computer. Firewalls can be hardware or software, or a combination of both. This section is concerned with software firewalls. Hardware firewalls, basically routers, will be covered in the next section.

All messages entering your computer from the Internet pass through the firewall which examines each message. The firewall blocks any message that was not specifically requested by your system. For example, when you click on a link in your web browser, you are requesting that page and the firewall will let it pass through. If a hacker attempts to gain access to your pc from the internet, the firewall will identify this message as not being requested (hopefully) and will block it.

There are many firewall programs available ranging from expensive to free. Here is a brief overview of the most popular and some recommendations:

ZoneAlarm
Like Norton products, I do not recommend any of the ZoneAlarm products. ZoneAlarm uses a lot of your system resources, bogs down your RAM (memory) and causes your system to run slower. In addition, since ZoneAlarm is the most widely used software firewall, hackers tend to target PCs with that software installed. Several nasty bugs can even disable ZoneAlarm and you would never know it.

Norton Personal Firewall
I think by now you know how I feel about Norton products. At times, this firewall can even block you from using the internet. Avoid it like the plague.
**Sunbelt Kerio Personal Firewall**

This is a good software firewall for the money. It's good at blocking unwanted traffic without scaring the user. Kerio also has a range of privacy features including cookie management and a system that prevents your most sensitive data being entered into forms on websites. With its good range of features, simple interface and a great price, Kerio is a good firewall for those on a budget.

**Windows Firewall**

FREE

**NOTE:** The Windows Firewall should only be used in conjunction with a hardware firewall such as a broadband router (see next section).

**Hardware Firewalls (Routers)**

Routers are the most common hardware firewalls for the home user. The basic idea behind a router is to allow two or more computers to share an Internet connection. This is done by using a system called Network Address Translation (NAT). If you really want to induce a nap, read the explanation of NAT in the "Did You Know?" section below. Using NAT, you can use your individual IP (Internet Protocol) address and share the connection with all of the computers in your home at the same time. In addition, NAT acts as a firewall by masking the true IP address of your computer which helps to keep your system safe from hackers. A simple broadband router is easy to install and maintain.

That NAT stands for Network Address Translation? It is a technology that allows your home network to share internet access. A single cable modem or DSL modem could connect all the computers in your home to the internet simultaneously. Additionally, NAT keeps your home network secure from hackers. By not forwarding requests that originate from the internet to your computer, a NAT device blocks most mischief.

**Human Behavior**

Probably the greatest threat to the security of your computer system is...........human behavior. Let's face it, we humans do stupid things! A majority of the viruses, bugs, spyware, spam and other nasties can be avoided or reduced by modifying our behavior on the Internet. Read the following suggestions for practicing safe surfing:

- Do not visit shady looking web sites. (You know the ones I mean!)
- Do not click on links in pop-up windows. Even if they tell you that your pc is infected or has a problem that you must fix immediately! It's a scam. Internet Explorer, Firefox and Opera browsers feature pop-up blockers -- be sure to turn them on.
- Do not click on links in emails. If you really wish to visit the site shown, type it in the address bar of your web browser by hand. It's probably a good idea when entering the web address to ignore any characters to the right of .com (or .net, .org, etc.).
- Do not respond to spam (junk email) -- just delete it. If you respond, then you are telling the spammer that he has reached a valid email address. Never click on any links that say something like "To unsubscribe, click here". That's just what they want you to do.
Do not respond to or click on links in emails that look exactly like email from your bank, credit card company, retail stores, insurance companies, etc.. This is called phishing. Once you visit their site, they'll try to get private data from you, like passwords. These web sites can look identical to your own trusted sites. If you really wish to visit the site shown, type it in the address bar of your web browser by hand. When in doubt, call the institution on the phone. That phishing is the act of sending an email to a user falsely claiming to be a legitimate enterprise? This is an attempt to scam the user into surrendering private information that will be used for identity theft. The email directs the user to visit a web site where they are asked to update personal information, such as passwords and credit card, social security, and bank account numbers, that the legitimate organization already has. The web site is bogus and set up only to steal the user's information.

Do not open attachments in emails, even from friends. Certain viruses can access someone's address book and copy the email addresses found there. Then they can send you email that looks exactly like it came from your Aunt Tilly using a technique called address spoofing. If you need someone to email you an attachment, make sure they tell you about it first or request it from them in advance.

Do not use your home or primary email address to fill out forms or subscribe to services on the Internet. Get a free email account from Google or Yahoo for these purposes. Shop online from reputable companies only. It's safe to use your credit card to pay for purchases online at any store as long as when you check out, you see a little gold lock in the lower right corner of your browser. DO NOT GIVE OUT PERSONAL INFORMATION LIKE SOCIAL SECURITY NUMBERS, BANK ACCOUNT NUMBERS OR CREDIT CARD NUMBERS (unless you're making a secure purchase) ON THE INTERNET!!! Any web site or email asking you for this information is trying to rip you off! DO NOT RESPOND TO E-MAILS FROM FOREIGN GOVERNMENTS (LIKE NIGERIA) ASKING YOU TO HELP THEM RECOVER MILLIONS OF DOLLARS!!! The list of unfortunate souls who have lost their life savings to this scam is very long.

Do not download music, movies or software from illegal sources such as Kazaa, Limewire and others. It's a sure fire way to pick up viruses and spyware. Stick to legal sources such as iTunes or Napster. Create a "limited user" account and don't run the computer as "Administrator". Even if a bad guy should get through all defenses (unlikely) he can't do any serious damage because a limited user account doesn't have full access to the entire system.

The Advantages of the Limited User Account

If you use Windows XP to browse the internet, check email, pay bills, shop online, etc., one of the most effective ways to protect yourself from hackers, viruses, worms and other mischief is to run Windows as a "limited user" for every day use. Microsoft automatically sets you up as using the powerful "Administrator" account when you first install it. By running as "Administrator", you are exposed to huge security risks. If a bad guy makes it into your computer while you're using an "Administrator" account, he can access the operating system without your knowledge and cause havoc.
This means that any code that finds the system also has full rights. By regularly using Windows XP under a "limited account", you can avoid most of the nasty stuff out there, because the "limited-user" account cannot install programs or change system settings.

You still need an "Administrator" account available for system maintenance and Windows XP won't let you remove all your administrator accounts anyway. You can set a user's account type by following these steps:

Log in as "Administrator".
Left-click the "Start" button.
Left-click the "Control Panel"
Left-click "User Accounts".
Select an account and choose "Change the account type".
Select "Limited".

Unfortunately, running as a "limited user" can have some disadvantages. You usually can't install a program unless you have administrator rights, and a number of programs don't function properly when the user has limited rights. When you come across this problem and you have to perform some task that requires administrator access, here are several solutions:

You can log off and log back on as the system administrator. This has the disadvantage of taking you out of whatever you were working on.

In most cases you can use the "Run As" command. This lets you run a single program as a different user. If you right-click on the program in Windows Explorer, you will see a "Run As..." menu option that will prompt you for the user name and password of the "Administrator" account.

There's another option that makes things easier. Using Windows XP's Fast User Switching option, you can have both an administrator and a limited user logged in at the same time. When something comes up that requires an "Administrator", you can "switch users" to the administrator, perform the task, and switch back.

The bottom line is this: If you have good ant-virus and anti-spyware programs, a good hardware or software firewall, use Mozilla Firefox and Thunderbird, and follow the safety guidelines outlined above, running as a "limited user" may not be necessary for the average user.

**What is software?**

Software, also known as programs or applications, is operating instructions for specific task based applications. The computer processors (CPUs) carry out these instructions. These include packaged programs used for graphic editing, word processing, databases, games, and so on. Software has to be written for a specific computer operating system (OS) like Windows, Mac OS, and Linux.

Without software, your computer is nothing more than an expensive paperweight. In this section, I'll review and recommend some of the essential software you'll need and want. Many of the programs listed are available free of charge.

FREE The Office Suite
Office Suite - A collection of powerful programs for business and home use. Suites make it easy for users to create and share information in databases, spreadsheets, and word processors, as well as other applications like presentation software. Microsoft Office is the leading office suite. There is also Corel's WordPerfect Suite and OpenOffice.

Most office suites contain the following four types of programs:

Word processor - A computer program designed to replace the typewriter. A word processor can create, edit, print, and store documents.

Spreadsheet - A computer program that lets the user enter numbers or text into a table with rows and columns. These numbers can be manipulated using formulas.

Presentation program - A computer program used to create and display presentations, usually in the form of a "slide show".

Email program - A computer program which users use to create, send, read and store email messages.

Certain more advanced office suites also contain a database program.

Open Office
Open Office 2.0
FREE
Read a review of OpenOffice here

This version includes:

Writer (word processor) - can produce quick memos, complete books with contents, diagrams, indexes, and more. Trap typing mistakes on the fly with the AutoCorrect dictionary, which can check your spelling as you type. Reduce typing effort with AutoComplete, which suggests common words and phrases to complete what you are typing. Writer offers direct connection to email software. Writer can read all Microsoft Word documents, or save your work in Microsoft Word format for sending to people who are still using Word.

Calc (spreadsheet) - natural language formulas let you create formulas using words (e.g. "sales - costs"). Wizards guide you through a comprehensive range of advanced spreadsheet functions. Styles and Formatting makes it easy to apply flexible cell formatting options, including freely rotating contents, templates, backgrounds, borders, and many more. You are free to use Microsoft Excel spreadsheets, or save your work in Excel format for sending to people who are still using Excel.

Impress (presentation program) - create effective multimedia presentations with 2D and 3D clip art, special effects, animation, and high-impact drawing tools. A complete range of Views are supported: Drawing / Outline / Slides / Notes / Handouts to meet all the needs of presenters and audiences, plus an optional multi-pane view to put all the tools at your fingertips. Impress has a complete range of easy-to-use drawing and diagramming tools to spice up your presentation. You are free to use Microsoft PowerPoint presentations, or save your work in PowerPoint format for sending to people who are still using PowerPoint.
**Draw** (graphics program) - create quick sketches or complex plans. Use Styles and Formatting to put all your graphics styles at your finger tips. Use the picture Gallery for clipart; create your own art and add it to the Gallery. Import graphics from all common formats (including BMP, GIF, JPEG, PNG, TIFF, and WMF). Use DRAW's free ability to create Flash (.swf) versions of your work.

**Base** (database program) - manipulate database data within OpenOffice.org. Create and modify tables, forms, queries, and reports. Base offers a choice of using Wizards, Design Views, or SQL Views for beginners, intermediate, and advanced users.

There is no email program included with OpenOffice but you can use the excellent, free email client from Mozilla called [Thunderbird](https://www.mozilla.org/thunderbird).

### Free Word Processors

**Notepad**

Notepad comes free with every version of Microsoft Windows. It is the fastest and easiest way to write simple notes.

**To open Notepad:**

Left-click on "Start".

Left-click on "All Programs".

Left-click on "Accessories".

Left-click on "Notepad".

Basic Notepad Instructions:

To open a new Notepad document, click "New" under the "File" menu. If you already have a document open on Notepad when you click "New", it will ask you if you'd like to save your work.

To open a saved document, click "File" then "Open". A box will pop up to help you look for files on your computer.

Notepad can open any type of text document (*.txt, *.doc, etc.) .

To save a document on Notepad, click "File" then "Save" or "Save As". A box will pop up asking you choose a file name for your document.

Click "File" then "Page Setup" to change the size of the paper, the margins, and other formatting.

To print a document, click "File" then "Print".

To exit Notepad, click "File" then "Exit". Notepad prompt you to save your changes if you haven't already done so.

**Wordpad**

Wordpad also comes free with every version of Microsoft Windows. It is a fast and easy way to write more complicated documents.

**To open Wordpad:**

Left-click on "Start".

Left-click on "All Programs".

Left-click on "Accessories".
Left-click on "Wordpad".

Basic Wordpad Instructions:
The most important commands like Save, Open, New, Print and Find are right at the top, just click on the icon without going through the menus.
Add text the same way as Notepad. Then add formatting, colors, and pictures.
You can use the ruler at the top to define the edges of your text. Move the ruler cursor to define the width of your document.
Add the date and time. Left-click on "Insert" then "Date and Time" and select the Date and Time format you want to use.
Be careful when using fonts. The best thing to do is not to use fancy fonts. The most popular fonts are Verdana, Courier, Arial, and Times New Roman.
A useful feature for Printing is Print Preview. You can preview your files before printing by Left-clicking "File" then "Print Preview".
Save your file often. To save a document on Wordpad, left-click "File" then "Save" or "Save As". A box will pop up asking you choose a file name for your document.
You can add images to your document by left-clicking "Insert" then "Object". Select "Create from File" to insert an image from your hard drive. Left-click "Browse" to specify the location of the image type.
Select fonts by left-clicking "Format" then "Font".

How to Cut/Copy and Paste Text
The methods for moving and copying text are the same for all word processors and most other programs as well.
Here are several movies that show you different ways to do this:
Copy and Paste text method #1.
Cut and Paste text method #1.

Photo Management

Picasa

Picasa is a free download from Google that will help you manage all of your photographs. It is a simple tool and does all that is needed. It starts by automatically finding all the image files on your hard drive. You can then view, sort, print, edit, send copies by email or upload them to a web album for others to view. Editing is easy and useful, and there are some nice special effects.
Picasa has an easy-to-use "Folder Manager" which enables you to pick the folders you wish to scan for pictures and set those folders in which pictures will be added or removed to be "watched" by Picasa for new pictures. You can go back at any time and alter the settings for any folder.

In the normal "library" view, there is a section that lists your albums and folders, with a main area showing thumbnails for the currently selected folder. This area contains thumbnails for all your folders, and you can scroll up and down through these. You can select small or large thumbnails and you can then magnify these further with the zoom control.

Figure SW-1

Picasa's Slideshow is easy to use. Select the images you want or select a whole folder then click the slideshow button.

There are simple editing tools that come with Picasa. There are buttons that automatically correct contrast, color, brightness as well as crop and straighten your pictures and remove red-eye. You can adjust the changes as needed and also apply several special effects.
Picasa can make backups of your images on CD or DVD, so that you won't lose them if your computer fails. It keeps a record of images you haven't backed up and can show them to you, so you don't forget any of them. You can also make 'Gift CDs' to give to other people.

Picasa makes it easy to print your photos, in standard or custom sizes to your own printer. It makes it simple to print more than one picture to a page if you want to.

Among the creative features it provides is the ability to create several different styles of picture collages with groups of photos.

If you want a really big picture, it can make a poster image using multiple sheets of paper in your printer. You can also select pictures and connect directly to your favorite on-line printing service to order prints.

Another option for sharing your photos that are built into Picasa include web albums. It takes only a few minutes to set up a free Picasa Web Album. Picasa gives you 250 megabytes of storage for free. Check out my Van Gogh Gallery to see what a web gallery looks like.

Additional web storage can be purchased. Picasa also helps you avoid sending embarrassingly large images to your friends by email, automatically resizing your images (the default is a sensible 640x480 pixels) and opening your email software with them attached to a message.

**Backups**

*Why do you need to back up your data?*

Back up your data is the most important task you will perform on your computer. If you don't have a backup, you risk losing your data... permanently. It's not a matter of IF you'll lose your data, it's a matter of WHEN.

Loss of data happens in many ways. The most common cause is physical failure of the hard drive that stores your data. You have everything saved on your computer's hard drive. That hard drive will eventually fail. There's a popular saying in the computer world -- "There are only two types of hard drives - the ones that have failed and the ones that will fail."

Another cause for data loss is power failure or spikes. It can result in loss of the file you are currently working on or your entire hard drive because you did not save it before the power failed.

Virus attacks can also render your data useless. There are many computer viruses out there that will delete files on an infected machine. That's why an effective anti-virus program is extremely important.
What data should you back up?

The answer is simple. Back up anything you can't replace!

Documents  Financial Records  Movies/Videos
Letters  Tax Returns  Addresses
Reports  Banking records  Phone numbers
Spreadsheets  Investment records  Saved games
Mailing lists  Photographs  Computer and program
Email  Music  settings

One way to simplify backing up is to store all of your data in one place. That's what the "My Documents" folder is for. Whenever you create a new file, like a Microsoft Word document, for example, you should save it in a folder in "My Documents". To create a folder called "Word" (you can name the folder whatever you want and create as many folders as you like):

Open the "My Documents" folder.
Select the "File" menu item.
Select the "New" menu item.
Select the "Folder" menu item.
Enter a name for the folder.
Press the "Enter" key.

Click here to see an animated demonstration on how to create a new folder in "My Documents".

Now when you want to back up your personal data, all you have to remember is to back up the "My Documents" folder.

Backup Software

I never use backup software. The main reason is this -- you cannot restore your data without using the backup software program. The backed up data is written in such a way that it is useless until it is restored by the backup program itself.

If you need to restore your data, you just run the backup program and you're done. Cool, huh? Now your hard drive dies and you buy a new one. You have your backed up data but where is the backup program? It was on the dead hard drive. No problem, you say -- just reinstall the backup program and you're good to go. But wait -- where did you put that disc? Can't find it? No problem -- just use the emergency recovery disc you made when you first installed the backup program. You know, the one you made according to the manual. Oh -- didn't do that, huh?

Guess what? Say bye-bye to your data or buy the software again. Let me repeat this point -- the best backup is one that has identical copies of your files that are immediately readable by any computer!

External Hard Drive
An external hard drive is an excellent choice for data backup. An external hard drive is no different than an internal hard drive except it is enclosed in its own separate case, attached to the computer by a USB or Firewire cable, and can be disconnected and moved to almost any other computer.

The Maxtor OneTouch III external hard drive is an example of one of the many drives available. The included OneTouch III system works with the included Retrospect software and allows you to back up your data with the press of a button. It has 160 gigabytes of storage and uses a USB 2.0 connection. 160 GB of storage is the equivalent of 34 DVDs or 40,000 MP3 files. As of November 2006, it is priced around $150. There are many other external hard drives available.

Read reviews from PC Magazine

Drive Imaging Software

A drive or disk image is a computer file containing the complete contents and structure of another data storage device, usually a hard drive. The image usually can be stored on a second hard drive, another partition of the same drive or on a series of CDs or DVDs. This image is not particularly useful as a backup and restore item since it is not useable without the imaging program. However, since an exact duplicate of an entire hard is stored in this image it is extremely useful in the event of a hard drive failure.

Let's say that one day you turn your computer on and your hard drive goes CLICK-CLICK-CLICK-CLICK and drops dead. What do we need to do to get your brand new hard drive to duplicate the old one?

Reinstall the Windows operating system from the original CD (of course, you still have it right? Right?)

TURN ON THE WINDOWS FIREWALL!

Update your anti-virus software with the latest virus definitions.

Update your anti-spyware software with the latest spyware definitions.

Update to Windows Service Pack 2, if necessary.

Reinstall ALL the programs and utilities that you've come to know and love (of course, you still have ALL of the original discs right? Right?)

Go to Windows Update and reload ALL the Windows patches and fixes from Microsoft.

Find your recent backup of all of your data (you did do that, right?) and restore it to your new hard drive.

OR -- if you have a recent drive image, you can restore the image using the emergency CD or floppy disc that you made when you first used the imaging software. You can be back in business in around 20 minutes. If your personal data on the image is outdated, you can then restore more recent data from your data backup.

Online Storage

This is the ultimate in safe and secure data backup although it probably isn't necessary for the average user. Online backup is when you sign up for disc space on an external server and store your data there. Usually, the service
includes the ability to run automatic backups on a regular schedule. If you suffer a loss of data, the data can easily be restored from the external server. There is often a monthly fee for this service but there are several free services that offer 1-2 gigabytes of storage. The most important feature these services should offer is that your data is protected using password authentication and at least 128-bit SSL data encryption.

Kate’s highly recommended links

Education

http://www.seniorsguidetocomputers.com/ - I got most of the information for this packet from here. The Senior's Guide to Computers is a step-by-step, plain English tutorial for the Windows PC. It's perfect for the seniors, juniors, kids, moms and dads who don't want to study for a degree in computer science in order to use their computer.

http://www.lynda.com/home/otl.aspx - Online Training by lynda.com - Video Based Training Courses and Tutorials - Learn from Respected Authors. Over 678 topics, Available 24 hours a day, 7 days a week, Starting at only $25 per month with a subscription to lynda.com Online Training Library which you can cancel anytime.

http://www.komando.com/ - The Kim Komando Show: America's top weekend talk radio program about all things digital! Free tips, downloads, software, newsletters, advice and more about the home electronics, iPods, digital cameras, photography, TVs, online security, gadgets and more.

Security

Basic antivirus and antispyware protection for Windows available to download for free. Limited features, no support, for private and non-commercial use only.


http://www.hoaxbusters.org/ - An alphabetical list of Internet e-mail hoaxes, scams and chain letters. If it's on the list, it's a hoax. If in doubt. Check it out.
https://www.donotcall.gov/ - The National Do Not Call Registry gives you a choice about whether to receive telemarketing calls at home. Most telemarketers should not call your number once it has been on the registry for 31 days. If they do, you can file a complaint at this Website. You can register your home or mobile phone for free. If they keep calling, file a complaint online, it usually stops in about 30-60 days.

**Communication**

http://www.skype.com/download/skype/windows/ - Skype Free Internet calls. Skype-to-Skype calls are always free but with Pay As You Go and Pay Monthly subscriptions you can call friends and family on any phone.

**Entertainment**

http://www.hulu.com/ - Some TV and Movies play online for free. (You need a high speed Internet connection)

http://www.youtube.com/ - You can watch short (max. 9 minutes) videos on everything from cooking, gardening to dog obedience. There is NO ADULT material allowed, so it is safe for kids (except maybe language).


http://www.loc.gov/index.html - The Library of Congress. The Library of Congress is the nation's oldest federal cultural institution, and it serves as the research arm of Congress. It is also the largest library in the world, with more than 120 million items. The collections include books, sound recordings, motion pictures, photographs, maps, and manuscripts.

**Your Local Library** – Many libraries allow you to “order books” to your nearest branch office then send you an email telling you when it has arrived. A great time saver! Just do a google search for your county public library.


http://www.nick.com/games/ - Play kid’s games, watch video from popular kid’s shows, play free online games for kids. (Keep the grandchildren busy)

http://www.funphotobox.com/Default.aspx - FunPhotoBox is a free photo editing tool. Funny photo effects include photos about movies, cars, famous people. Make fun with your photos online!. This site makes great personalized desktop pictures.
http://www.accuradio.com/ - AccuRadio is the world's leading independent, multichannel, personalizable Internet radio station, featuring over 430 channels and subchannels of really cool music. Plus, you can customize each channel to your tastes! And it's free!

Shopping

http://www.dealhunting.com/ - Coupons, Coupon codes, discount codes and bargain deals for over 1500 online stores. Coupon codes for GAP.com, OldNavy.com, Best Buy, Overstock.com and more. Updated hourly. GO HERE BEFORE YOU SHOP! You can usually save at least the shipping cost.

http://www.craigslist.org/about/sites - Craigslist. This is basically free classified ads online. Find the one in your area and browse.

http://www.woot.com/ - Woot.com is an online store and community that focuses on selling cool stuff cheap. They sell one item per day until it is sold out or until 11:59pm central time when it is replaced. Check it daily. Occasionally, there is a woot off when they will sell off stuff rapidly for about 24 hrs or more.

http://www.ebay.com/mainc1.html?ssPageName=VisitorPage – Ebay. Auction site. My rule when buying, NEVER buy big ticket items from anyone with less than 50 feedbacks. (There are scammers who do a few deals then put up expensive stuff and run) NEVER send Money Orders (PayPal is safest and guaranteed up to $200.) I buy expensive stuff here $200-$1200, and usually save a couple hundred bucks at least, but I always deal with people with a large 300+ positive feedbacks.

http://www.amazon.com/ - Books, Cds, DVD, Everything. I love this place. I always shop here first to get price, then check ebay.

http://photos1.walmart.com/storepage/storePageId=View+All+Products;jsessionid=C85B7D11D83D9C94223019F14EFCED1E - Wal-Mart Photo Center – upload your photos and get them printed or make books, calandars, mugs etc…. Very economical.

http://www.consumerreports.org/cro/index.htm - Consumer Reports Online. - Product reviews and Ratings on cars, appliances, electronics and more from Consumer Reports

Wouldn’t live without

http://www.roboform.com/ - RoboForm is the top-rated password manager and web form filler that completely automates password entering and form filling. RoboForm password manager saves online passwords, fills login forms with saved data, automatically logs you into a web site, allows you to view and edit passwords. I have used
this for several years with no breach of security. I have hundreds of user/password combinations and it remembers them all and where they get applied. I also printed out a copy for my files, so that in the event of my death, my family can get into all my banking and retirement accounts, easily. I purchased this for ALL my computers. I LOVE THIS PROGRAM!

Travel

http://www.hotwire.com/- Hotwire offers cheap travel deals on flights, hotel rooms, rental cars, vacation packages and cruises. Book your next travel deal at Hotwire.com

http://www.orbitz.com/- Book cheap airline tickets, hotel reservations, car rentals, vacations and travel deals on Orbitz. Get our cheapest airfare and hotel deals or a cash refund.

http://www.expedia.com/- Plan a trip, book cheap airfares, purchase airline tickets, make hotel reservations, and find vacation packages, car rental & cruise deals at the travel ...

Stalking your friends and relatives

http://www.facebook.com/home.php - Facebook. if your friends and family have pages, you can keep up with their daily posts and photos. It used to be for College kids but us old people have invaded. Good way to stalk the kids. My page: http://www.facebook.com/kvstark


County Public Records - Some counties have their Criminal and Traffic Records online. Check up on your kids’ driving records, etc.

Miscellaneous

http://www.pickyourown.org/ - This easy-to-use web site lists all of the pick-your-own fruit and vegetable farms the U.S., Canada, Britain and other countries Find a farm or orchard near you to pick apples, strawberries, blackberries, blueberries, figs, peaches and tomatoes at better quality and lower prices than a store or farm stand! There are also many easy and illustrated step-by-step directions to can, freeze, dry, or preserve almost anything, from making jam to catsup!
