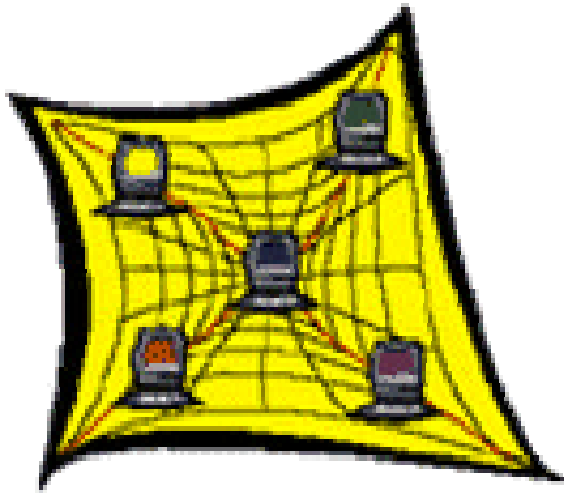

THE INTERNET



SEARCHING THE WORLD WIDE WEB

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Using the Internet in the Classroom

What is the *Internet*?

The *Internet* is the actual network of servers, routers, and computers that are linked worldwide. The *Internet* holds all of the information that makes up the *World Wide Web*, *email*, *FTP* (File Transfer Protocol), *Gopher*, *Telnet*, etc.

You may have heard the terms “dot com” or “dot net”. These are file name extensions that indicate the *domain*, and the “dot” is a period. Examples include:

.com = commercial	.edu = education	.org = organization
.net = network provider	.gov = government	.mil = military

Are the terms *Internet* and *World Wide Web* the same?

Although the terms are used interchangeably, they are different. The *Internet* is the actual network of wires, computers, servers, routers, etc. The *World Wide Web* is a facet of the *Internet*. In other words, it is where the *WWW* is stored. The reason that everyone uses the terms interchangeably is that the *World Wide Web* is the *Internet's* most common facet.

What can I do on the *Internet*?

The *Internet* is very powerful. You can use the *Internet* to:

- Communicate through email, listservs, bulletin boards, and teleconferencing
- *Browse* through pages on the *World Wide Web*
- *Search*, using *search engines* and/or *Web guides*
- Find resource information, pictures, etc., to supplement and enrich your lessons
- Find lesson plans, not only those that use traditional teaching methods and materials, but also others that integrate the use of technology
- Integrate using the *Internet* into classroom lessons
- Participate in *on-line* projects
- Design *WebQuests* and other projects for students
- Create Web pages to put your class or school on the Web
- Create Web pages to put your own educational tools on the Web
- Open your classroom to the world!

World Wide Web Terminology

Internet – A lot of computers hooked together through telephone lines, network cables, satellite dishes, and many other types of data communication links.

World Wide Web (WWW) – Officially described as a “wide-area hypermedia information retrieval initiative aiming to give universal access to a large universe of documents via hypertext links”. *WWW* pages (sites) may include text, graphics, and hypertext links to other Web pages. Web browsers enable users to explore the *World Wide Web*.

Web Browsers – The name given to software programs that allow you access and explore the World Wide Web. **Netscape** and **Internet Explorer** are examples of browser software.

Web Page – A page in a Web site that may contain text, graphics, still and moving images, sounds, and links to other Web pages on the *World Wide Web*.

Home Page – The Web document that appears at the start of a session. This can be set to your personal choice by going to a site you want to use. Click on **Edit** on the menu bar, then click **Preferences**. Click the **Use Current Page** button, and your home page is set. It can be changed at any time.

Bookmarks – Called *bookmarks* by **Netscape** and *favorites* by *Internet Explorer*, they provide a way to create a shortcut to favorite Web sites.

HTML – Stands for *HyperText Mark-up Language*. This is the programming code that creates documents accessible by a Web browser.

Hyperlink – A way to link a Web page to another Web page, graphic, or sound. Hyperlinks are usually underlined or are a different color than the text or images around them.

Hypermedia – Hypertext with a difference – hypermedia documents contain links not only to other pieces of text, but also to other forms of media, like sounds, images, and movies. Images themselves can be selected to link to sounds or document. Hypermedia simply combines hypertext and multimedia.

HyperText – Basically the same as regular text; it can be stored, read, searched, or edited, with an important exception; hypertext contains connections, or links, to other documents within the text. These links may connect to other parts of the same Web page, other Web pages on the same machine or to another Web page anywhere in the world.

URL – Stands for Uniform Resource Locator. It is an address pointer to hypermedia documents available on the Web. **Note:** Every Web page has a unique URL. URL's are case sensitive.

URL Anatomy: <http://www.blountk12.org/teacherlinks/index.html>



Browsing the Web Using Netscape Navigator

Netscape Navigator is the *browser* part of **Netscape**. The page that appears automatically is the *home page*. The directions for setting a *home page* are in the *Email Preference* section page 2. You can always return to the *home page* by



clicking the **Home** button on the tool bar of the **Netscape** window.

You can move to a new page if you know its **URL**—the *location* or address—on the Web. Click in the **Location** box. This will select the address of your home page. Type in the Web address of the page you want to view. You do not have to type the "http://" prefix at the beginning of the address. Most addresses start with "www". Web page addresses are very sensitive, both to case, spaces, and punctuation marks. For example, a comma instead of a period (dot) will cause an error message. After typing the address, press the **Enter** key.

You can type part of a *URL*, such as "apple" (for www.apple.com), or type a general word, such as "gifts" or "flowers." **Navigator** guesses what page you want to view, or displays a page with a choice of links related to the typed word.

As you move the mouse over a page, the pointer will sometimes change to a pointing finger. This happens when the pointer is over a *link*. When a *link* is *clicked*, you will be taken to another Web page, or another part of the same Web page. You can recognize word links because they are usually a different color (standard is blue for *nonvisited* links, and purple for a link that has been *visited*). Graphics can also be links and are sometimes harder to recognize. Watch for the hand!

To return to a previous page, click the **Back** button. You can also use the **Forward** button to move back and forth between pages you have visited.

Sometimes a page will open in a new **Netscape** window that appears on top of the first window. Then the **Back** button will not be active. You may wonder what happened to your other page, but if you look at the *task bar* at the bottom of your screen, you will see that you have two **Netscape** windows open. You can toggle back and forth by *clicking* the **Netscape** buttons on the *task bar*, or just close the window on top by clicking the "x" box in the upper right-hand corner.

There are several Web sites with tutorials and information on learning to use the Internet. On the **Teacher Links** page, click **Teaching with Technology** and look under **Using the Internet**.

Adding Bookmarks

Once you have gone to the trouble of searching and finding great sites, you may want to *bookmark* them. Then you will be able to easily find them without going through the search process again or having to remember a long address, or *url*.

1. Find a Web site you want to bookmark.
2. Click **Bookmark** button on the left side of the tool bar.
3. Click **Add Bookmark**.

Note: If you keep adding bookmarks in this manner, you will end up with a very long list of sites. It is a good idea to set up folders to keep bookmarks organized.

To go to a bookmarked site:

1. Click the **Bookmark** button.
2. Click the folder where the bookmarked site is filed.
3. Click the name of the site.

Creating Folders

1. Click the **Bookmark** button on the toolbar.
2. Click **Edit Bookmarks**. The **Bookmarks** window will open.
3. Click **File ® New Folder** on the menu bar. Type a folder name and click **OK**.
4. Repeat until you have enough folders.

Adding Bookmarks to Folders

1. Find a Web site you want to bookmark.
2. Click **Bookmark** button.
3. Click **File Bookmark**.
4. Click the folder where you want to put the site.
5. Check the name of the bookmark and *edit* if necessary.

Editing Bookmarks

1. Click the **Bookmark** button.
2. Click **Edit Bookmarks**.

The **Bookmarks** window will open. From this location, you can rename the bookmark so that you will better remember it. Just click on the bookmark you want to rename. Under **Edit** on the menu bar, click **Bookmark Properties**. Type the new name in the **Name** box. Then click **OK**. You can delete sites (*right-click* or click the

Delete button on the keyboard) and *drag-and-drop* bookmarked sites to other folders in the **Edit Bookmarks** window as well.

Saving and Using Stuff from the Internet

Printing from the Web

Print any Web page by clicking the **Print** button on the tool bar. You may waste a lot of ink and/or paper, however, and also get more pages than you want or need. To preview the number of pages that will print, as well as what will be on each page:

- Click **File** → **Print Preview**.
- Click the **Next Page** button at the top to view more than one page. You may realize that you only need page 1, or page 2, etc.

To print:

- Click the **Print** button at the top left.
- If you do not need all the pages, you can print just the pages you need. In the **Print range** section (lower left of Print window) click **Pages** instead of **All**.
- Click in the **from:** box and type the first page you want to print. Then click in the **to:** box and type the last page you want to print. If you only want one page, type the page number in both boxes.
- Click the **OK** button to print.
- Click the **Close** button when finished.

Copying Text from a Web Page

Sometimes, however, you just need the text, or only part of the text, from a Web page. When you save text for a report or project, first make a note of the location of the page by copying the address (URL) in the "Address" or "Location" bar at the top of your browser. You will need this information when to cite a Web sources in a bibliography. (Click in the location box to hi-light the Web address, then click *Copy* under *Edit*. Open MS Word, and under Edit click Paste.)

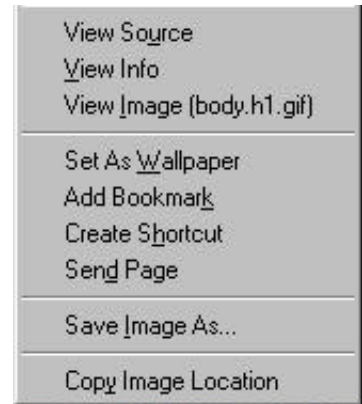
1. Select the text you want to save by clicking and dragging across the entire block of text. If you have difficulty, try starting at the upper left-hand corner and dragging the mouse to the lower right.
2. Release the mouse button and the text should be selected or darkened.
3. Pull down the **Edit** menu and click **Copy**.
4. Open a new Microsoft Word document.
5. Pull down the **Edit** menu and click **Paste**. You should now see all of your text in the word processor. The formatting will probably look funny, and you can clean it up if necessary. Then print.
6. To save the information, give the document a name it and save to a folder.

Saving Images from the Web

Pictures and graphics can be saved to use in a document, a Web page, or any multimedia project.

- *Right-click* on a picture or graphic
- Click **Save Image As...** on the pop-up menu
- Click the *down-arrow* at the end of the **Save in** box
- Choose a location to keep your saved “stuff”

Tip: Click on **Desktop**, click the **Create New Folder** icon, type a name for the folder—like *Graphics*, click on the new folder, then click the **Open** button



- Click in the **File name** box and, if necessary, give the graphic a *user-friendly* name
- Click the **Save** button

Now you can use the saved picture or graphic in a word processing document or multimedia project.

Copyright Issues

Fair Use provisions allow you to use the sites you harvest in your classroom alone. NEVER place any material you harvest from the Web BACK onto the Web via your school or personal Web site. Be sure that ALL material is only accessible in-house. Be sure to obtain permission from site creators if you'd like to use ANY of their material (graphics especially) on a Web site that the whole world can see. When in doubt, ask for permission for any and all content that you harvest. Be sure to follow copyright laws for copyrighted materials.

Good information about educational copyright laws can be found at:

<http://lcweb.loc.gov/copyright/circs/circ21.pdf>

More information can be found on the **Teacher Link** page, **Teaching with Technology**.

Downloading from the Web

One of the most common questions is “*What happened to it?*” when downloading from the Web. If given a choice of what to save the file, *always* save to your **Desktop**.

- Click the *down-arrow* at the end of the **Save in** box and click **Desktop**



- Click in the **File name** box and, if necessary, give the file a *user-friendly* name
- Click the **Save** button

Many downloads are programs. What you download is actually a *setup* file. Once the file is downloaded, it must be installed.

- Close Netscape and all other programs (you usually have to restart)
- Double-click the setup icon and click the buttons to install the program.
- Once the program is installed, the setup file can be deleted.

What if you are not given a choice of where to save a file?

First, pay attention to the dialog box while the file is downloading. It should show the name of the file, and the directory may also be listed at the top of this box, such as **C: /MyDownloadFiles** or **C:/Windows/Temp**

Places to look for downloaded files:

- **My Download Files** folder on the **C:** drive
- **Downloaded Program Files** folder in the **Windows** folder (I.E.)
- **Temp** folder in the **Windows** folder
- **My Documents** folder on the **Desktop**
- Last resort, click **Start Find Files or Folders**; type the file name and click the **Find Now** button

Adobe Acrobat Reader

This is a very useful program to download to any computer.. It allows the computer to open **.pdf** files, a popular way of posting documents on the Web. It is found at <http://www.adobe.com/products/acrobat/readstep.html>

A link to this site can be found in several places on the BCS Web site.

Searching

Search engines allow you to use *keywords* to find what you need on the Web. When performing a search with any *engine*, you must first enter your topic. Most search engines overlap the same information and use similar formats, but you should find one that you are comfortable with. Search engines *do not*, contrary to popular belief, find everything on the Internet.

Trial and error (and therefore patience) is necessary when using a search engine. You may have to change or completely redo your search if the results are not what you expect.

Important Tip: Phrase searching is often the most effective type of search. When you want to search for a phrase, it is important to enclose the phrase in quotations (Ex. "Educational testing"). Otherwise, you will get results that include only one of the phrase words.

Choosing the BEST Search Engine

There are numerous search engines and Web guides on the Internet that can help you find just the right information. Some engines and guides specialize in certain types of information, while others allow you to specify options for your search. Listed below are some of the different types.

Web Search Utilities – People who create Web pages submit them to a Web service, where *key words* from the pages are put into a database. A *search* for one of the key words of a page will yield a link to that page. **Examples:** *Alta Vista, Excite, HotBot, Infoseek Ultra, and WebCrawler.*

Web Meta Search Utilities – send the search you create to several of the Web search utilities at once, thereby sparing you the effort of searching one after the other manually. **Examples:** *Dogpile, MetaCrawler, and Savvy Search.*

Web Directories – each *site*, or Web page, registered with a directory is placed within a hierarchy according to its topic. The total number of sites represented tends to be smaller than those of the *Web search utilities*. **Examples:** *LookSmart and Yahoo.*

Internet Resource Directories – lists of non-Web, but still Internet based resources. **Examples:** *Listserv Directory, Usenet Directory, and Email Addresses.*

Links to all of these search engines, along with tips for searching, by accessing a great Web site called **Findspot**

<http://www.findspot.com>

A link to **Findspot** can be found on the **Teacher Links** page (click on the binoculars).

evaluating Web sites can be found on the **Teaching with Technology** *Teacher Links* Web page.

Creating Web-based Lessons and Activities

There are many different types of Web-based activities already created that can be found on the Web. The **Teaching with Technology Teacher Links** Web page is a good place to start looking for these activities, as well as for help in creating your own. Kinds of activities include *scavenger* or *treasure hunts*, *virtual field trips*, *Web quests*, and *online projects*.

Participating in Internet-based Collaborative Projects

Participating in online projects is a great way to use the Internet in the classroom. Most projects involve doing some kind of activities in your classroom, and then emailing the results to a project coordinator. The final results for all participants will usually be posted on the Web for participating classes to observe. This is a wonderful way to really “open your classroom to the world”. As projects come to our attention, we will post them on the listserv.

The **Classroom Connect** listserv offers teachers a way to post projects so that other classes can participate. It also sends information from other teachers about good Web sites, Internet projects, etc. Subscribe through the **Classroom Connect’s** Web site: www.connectedteacher.com/listServ/subscribe.asp

TrackStar

TrackStar is a wonderful Web resource that allows teachers to create Web-based lessons that can be accessed by students on the Web. It is an online interface that helps teachers organize on-line resources (URL’s) and file them in the TrackStar database. Directions can be added that tell students what to look for or accomplish when visiting each link in the track. The list of resources, acting like a table of contents to the Track, remains visible throughout the lesson, allowing the user/student to easily browse through the lesson and stay on track. An online quiz can be created to evaluate progress. Find out more at:

<http://scrtec.org/track/>

WebQuests

WebQuest lessons are teacher-designed, skill and proficiency-specific, task-oriented units of instruction. The lessons provide a relatively safe, teacher-directed environment in which students may access the Web. *WebQuests* can be short or long term, and usually have an introduction, a task, information resources, a process, learning guidance and advice, evaluation, and a conclusion

For more information on *WebQuests*, see the **WebQuest Page**, and other Web quest sites found on the **Teaching with Technology Teacher Links** Web page.

A Little History and a Few Facts about the Internet

- The Internet began as the **ARPANET** (Advanced Research Projects Agency).
- **ARPANET** was designed for scientific and military needs in the 1960's.
- In the mid-1990's, the **NSF** (National Science Foundation) funded six supercomputers for scientific research located in cities across the United States.
- In 1986, the **NSF** expanded by funding its **NSFNET**. Remote access came about via high-speed phone lines. At this point, it was known for text only.
- In the early 1990's, the **World Wide Web** was created, which changed the way people used the Internet.
- The **WWW** was born near Geneva, Switzerland at the European Laboratory for Particle Physics, as a way to share research information.
- This was the beginning of hypertext, or linked, documents. The transition from government to business use was underway
- Senator Al Gore laid the groundwork for the next phase of the Internet through the **High Performance Computing Act**. He desired to link schools, universities, government agencies, and anyone else to a faster network. He envisioned the **NREN** (National Research and Education Network).