Presents:
INTERNET I
INTERNET BASICS AND ONLINE SECURITY

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Adapted from the Texas State Library’s TEAL for All Texans Student Resources Manual
INTERNET I Topics

- Getting Online: Introducing the Internet
- Search Engines
- Online Safety
Goals and Objectives

- Define the Internet and internet terminology
- Identify all components of a browser
- Learn how to effectively use search engines
- Learn security terminology and how to protect your computer from viruses
- Understand the importance of strong passwords
- Learn how to secure your information when online
Getting Online: Introducing the Internet
What is the Internet?

- The Internet is a worldwide collection of computer networks, cooperating with each other to exchange data using a common software standard. This software standard is the web browser (Internet Explorer, Mozilla Firefox, Google Chrome, etc.)
- It consists of millions of private, public, academic, business, and government websites, of local to global scope.
- Websites consist of webpages (i.e. I can be on Walmart’s website but be on the electronics webpage)
3 Main Web Browsers

• Internet Explorer –

• Mozilla Firefox –

• Google Chrome –

• For web browser reviews visit: internet-browser-review.toptenreviews.com/
Introducing The Internet

1. **Address box**: used to type in web addresses to visit different websites or as a search box.
2. **Title bar**: displays the name of the web page that you’re viewing.
3. **New Tab**: used to open a new webpage while keeping the current one intact.
4. **Button bar**: located in the top right corner, contains your home, favorites, and tools buttons.
5. **Menu bar**: located below the Address Box, used to manage your internet settings and customize your Web browser.
6. **Home page**: first page you see after opening the web browser.
7. **Status Bar**: displays when your page is done loading and contains a zoom in/out button.
Introducing The Internet

8. **Back/Forward Buttons**: lets you move back a page or forward a page
9. **Web Address**: the url you type to visit a website
10. **Refresh Button**: used to reload a webpage in case of an error
11. **Home Button**: takes you to your homepage
12. **Favorites Button**: lets you save websites for easier access
13. **Tools Button**: gives you options to print, save, zoom, manage your internet security, view downloads, and access other internet options
10. Refresh button
9. Web Address
8. Back/Forward Buttons
11. Home
12. Favorites
13. Tools

Web Browser used Internet Explorer
Menu Bar

• This is the central access point for customizing and configuring everything about your browser and web experience.

• Contains six main items:
  – **File:** lets you open a new tab, new window, and print
  – **Edit:** allows you to cut, copy, or paste, select all text on a page, and search for word terms on a page
  – **View:** allows you to choose which toolbars are open, zoom in/out, and change text size
  – **Favorites:** allows you to add, organize, and view your saved favorites
  – **Tools:** allows you to manage your internet security through deleting browsing history, managing pop-ups and add-ons, and accessing your internet options for more customization
  – **Help:** helps you learn about your browser, see what version your browser is and update it if necessary
Search Engines
Search Engines

• A search engine is a program that searches web pages and websites for a word or set of words and returns a list of results containing those words.

• The most popular search engine right now is Google but other search engines include Yahoo and Bing.
Google vs. Yahoo

• Google is catered towards the consumer (you) and is designed to be a more simplistic search engine providing the most results, less ads, and periphery services that are all connected (i.e. email, maps, I.M., etc.)

• Google’s search basis is to increase relevance

• Yahoo is catered more towards advertising and is designed to be a comprehensive web portal with links to news, music, movies, email, etc.

• Yahoo’s search basis is to increase page views (popularity) and to a degree ad placement

You can do a simple comparison by opening up two tabs in a web browser. In the first tab go to Google.com in the second tab go to Yahoo.com. Conduct a search in each of their search boxes and note the differences on each search results page.
Internet Search Tips

• Every word matters – generally every word you type will be used with exception of articles (i.e. a, an, the)
• Search is never case sensitive – A search for ‘new york times’ is the same as a search for ‘New York Times’
• Generally punctuation is ignored and complete sentences aren’t required.
Internet Search Tips

• *Keep it simple* – if you’re looking for a particular company, just enter its name, or as much of its name as you recall. If you’re looking for a particular concept, place, or product, start with its name. For example if your looking for a pizza restaurant, just enter pizza and the name of your town or zip code. Simple is good.

• *Think how the page you are looking for will be written* - A search engine matches the words you type in to pages on the web. Use the words that are most likely to appear on the page. For example, instead of saying “my head hurts”, say “headache”, because that's the term a medical page will use.
Internet Search Tips

• *Describe what you need with as few terms as possible* - The goal of each word in a query is to focus it further. Since all words are used, each additional word limits the results. If you limit too much, you will miss a lot of useful information. The main advantage to starting with fewer keywords is that, if you don't get what you need, the results will likely give you a good indication of what additional words are needed to refine your results on the next search. For example, *[weather Cancun]* is a simple way to find the weather and it is likely to give better results than the longer *[weather report for Cancun Mexico]*.

• *Choose descriptive words* - The more unique the word is the more likely you are to get relevant results. Words that are not very descriptive, like 'document,' 'website,' 'company,' or 'info,' are usually not needed. Keep in mind, however, that even if the word has the correct meaning but it is not the one most people use; it may not match the pages you need. For example, *[ringtones]* is more descriptive and specific than *[sounds for the phone]*.
Homework

• [www.gcflearnfree.org/internet](http://www.gcflearnfree.org/internet)

• Click the ‘Internet 101’ link and read through Lessons 1-5

• Then go back to the Internet Basics main page and click the ‘Internet Safety’ link. Read through Lessons 1-6
Review

• What are the three main web browsers?
• What is the address box?
• Where would you go on the menu bar if you wanted to delete your browsing history?
• What’s one difference between Google’s search engine and Yahoo’s search engine?
Online Safety
Tools

• **Delete Browsing History** manually or set it to automatically delete when you close your browser

• Turn on **Pop-Up Blocker** to manage your popups and prevent unsolicited ads from slowing your computer down

• Use **Internet Options** to customize security and privacy settings
  – *General*: set homepage and browsing history options
  – *Privacy*: manage pop blocker settings
  – *Content*: parental controls
  – *Programs*: set browser default
Tools Cont.

- All these same options are available in Mozilla Firefox and Google Chrome
  - Internet Explorer – Tools > Internet Options
  - Mozilla Firefox – Tools > Options
  - Google Chrome – Settings > Show advanced Settings
What are Cookies?

• Cookies are small text files that websites put on your computer to store information about you and your preferences. Cookies can enrich your browsing experience by allowing sites to learn your preferences or allowing you to avoid signing in every time you visit certain sites. However, some cookies might put your privacy at risk by tracking sites that you visit.
Creating a Strong Password

Do’s

• **Use a longer password.** Your password should be at least six characters long, and for extra security it should ideally be between 8-12 characters (if the site allows it).

• **Keep passwords in a secure place** if you need to write them down. It's even better if you just write down hints for them that others won't be able to understand.

• **Include numbers, symbols and both uppercase and lowercase letters** (if the site allows it).

• **Create a mnemonic device or use the first letters of a phrase.** With a bit of practice it will become relatively easy to make and memorize passwords like these.
  – *Mnemonic Device:* For example, "H&jNp2#" can be remembered as "HARRY & jessica Need people 2 call."
  – *First letters of a phrase:* For example, “TbonTbTitQ” is the phrase “To be or not to be that is the question” A hint could be ‘Shakespeare’.

• **Remember random passwords are the strongest.** Use a browser’s password manager to create and store your passwords. Password managers will automatically fill in the correct login information that you’ve created for that site. In Internet Explorer Tools>Internet Options>Content; Mozilla Firefox Tools>Options>Security; Google Chrome>Settings>Advanced Settings.
  – **Note:** Whenever a message comes up at the top or bottom of your browser window asking whether you want the website to save the password it is saving them in the password manager.
Creating a Strong Password

Don’ts

• **Use personal information** such as your name, birthday, hobby or spouse's name. Personal information is often publicly available, which makes it much easier for someone to guess your password.

• **Don't use the same password for each account.** If someone does discover your password for one account, all of your other accounts will be vulnerable.

• **Use easy patterns** like 123123, 654321, or abcabc, etc.
HTTP and HTTPS

• **HTTP** is a system for transmitting and receiving information across the Internet. Http serves as a request and response procedure that all websites on the Internet follow so that information can be rapidly, easily, and accurately passed between servers, which hold information, and users (you), who are trying to access it.

• **HTTPS** operates the same except when information is being requested, the response requires a secure encryption code to prevent unauthorized access and creates a confidential and secure page. You should see https headings on websites that typically require extra secure connections such as banking, business/government log ins, and monetary transactions.
**Viruses**

- **Adware:** A malicious code that displays unsolicited advertising on your computer.
- **Malware:** stands for Malicious softWare and is an umbrella term that includes any type of harmful code – “trojans”, “worms”, “spyware”, “adware”, etc that infiltrate a computer without consent of the computer user and are designed to damage the computer, collect information, or allow your computer to be used remotely to send spam.
- **Spyware:** is stealthy software that leverages your Internet connection to collect information about you without your knowledge or consent and sends it back to whomever wrote the spyware program. Like adware it is often installed when you download ‘freeware’ or ‘shareware’ programs. Spyware may be looking for your banking information, personal information, etc. It is illegal and pervasive.
- **Spam:** Unsolicited e-mail attempting to sell you something. Also known as junk mail.
- **Phishing:** the attempt by people to impersonate a business in order to trick you into giving out your personal information.
Antivirus Programs

• A full-scale antivirus tool both cleans up existing threats and keeps new attacks from getting a foothold. Whenever you buy or download free software always use its official website to do so.

• Paid ($30-$40)
  – Bitdefender Antivirus Plus ($39.95)
  – Webroot Secure Anywhere Antivirus ($29.99)
  – Norton Antivirus ($49.99)

• Free
  – Bitdefender Antivirus Free Edition
  – Ad-Aware Free Antivirus
  – AVG AntiVirus Free
  – Avast Antivirus Free

• Cleanup only
  – Malwarebytes Anti-Malware
Antivirus Program Info

• To get more information on deciding which antivirus is best for you, follow one of the methods below to access an article by Pcmag.com that will allow you to see pros and cons of each.
  – [www.pcmag.com/article2/0,2817,2372364,00.asp](http://www.pcmag.com/article2/0,2817,2372364,00.asp)
    Or
  – [www.pcmag.com](http://www.pcmag.com) and in the search box type in “the best antivirus for 2015”
    Or
  – Google search “the best antivirus for 2015” and select the search result by pcmag.com
Windows Update

• To make sure your computer stays up to date with security fixes and updates, regularly run windows update or set it to automatically update for you.

• Windows Update can be found in the Start Menu > Control Panel > System and Security > Windows Update
  Or

• When you’re in Internet Explorer go to Tools > Windows Update
Internet Safety Guide

• **Use Familiar Websites:** Start at a trusted site rather than shopping with a search engine.

• **Look for the Lock:** Never ever buy anything online using your credit card from a site that doesn't have SSL encryption installed. You'll know if the site has SSL because the URL for the site will start with HTTPS://.

• **Don't Tell All:** No website needs your social security number to do business unless it’s a job application or other secure site. When possible, give the least amount of information possible.

• **Check Statements:** Go online regularly and look at electronic statements for your credit card, debit card, and checking accounts. If you see something wrong, pick up the phone to address the matter quickly.

• **Protect Your PC:** Protect against malware with regular updates to your anti-virus program.
Internet Safety Guide

• **Use Strong Passwords:** Make sure to utilize strong passwords, especially when banking and shopping online.

• **Downloading:** When downloading from the internet, it's best to get products provided directly by the retailer or company, like Amazon, Target, etc.

• **Scams & Viruses:** If something saying antivirus pops up while your on the internet and you didn’t download it or know what it is don’t click it. Close out of its screen or window. Windows, Microsoft, and your Antivirus program of choice will never go through the internet to do a scan.

• **Use Public Terminals Wisely:** If you use a public computer, remember to always log out every time, even if you were just checking email. It’s best to use your own personal computer for making purchases and accessing banking accounts.

• **Privatize Your Wi-Fi:** If you go out with your laptop and access public Wi-Fi, set the connection to public.
Internet Safety Guide

• **Use caution when you open email:** When you receive email messages from friends that seem odd like advertising for some product/company or the email only contains a link with no explanation its probably a hacker and you should delete the email and alert the person that they’ve been hacked.

• **Know what you've posted about yourself:** A common way that hackers break into financial or other accounts is by clicking the "Forgot your password?" link on the account login page. To break into your account, they search for the answers to your security questions, such as your birthday, home town, high school class or mother's middle name.

• **Know What's Too Good to Be True:** Skepticism, in most cases, can go a long way toward saving you from a stolen card number, a virus, or a scam.
Review

• If I want to customize my internet’s security and privacy settings, where do I go?
• What is one reason you should have a different password for most online accounts?
• If I am checking my account balance on a banking website, should I see http or https in the address box?