



Lesson 11: Search Engines & Research Tips

Learning Objectives

- Introduce new online research terms and definitions.
- Provide students with basic knowledge for how to be safe when searching the Internet for information.
- Provide effective and safe research tips.
- Enhance students' motor skills while navigating the game.

Materials You Will Need

- Computers with Carnegie Cadets: The MySecureCyberspace Game installed
- Worksheet 11: Search Engines and Research Tips
- Writing utensils
- Hint Sheet 03 (download from <http://www.carnegiecyberacademy.com/documents/hintSheet03.pdf>)

Classroom Activities (Duration: 45 minutes)

Timeline	Teacher Instructions	Student Activities
Introduce Concepts (15 min)	<ul style="list-style-type: none"> • Hand out Hint Sheet 03, and remind students what the four website dangers are (also addressed in the previous lesson). (Hint Sheet 03) (5 min) • Lead students into the game and direct them to the West Dorm Rooms to complete the ReQuest with Erika. (10 min) <ul style="list-style-type: none"> • Students who finish the ReQuest before their peers can buy items from the Academy Store and decorate their dorm rooms. • Hand out the worksheet and read “What is a search engine?” and then “How to research with a search engine.” (Worksheet, parts 1, 2) (10 min) 	<ul style="list-style-type: none"> • Remember what the four website dangers are. Read Hint Sheet 03 and make sure you understand them. • Start and log in to the game, then go to the West Dorm Rooms (Atrium > West Dorm Rooms). Talk to Erika and offer to help her with pop-ups. <ul style="list-style-type: none"> • After completing the ReQuest, buy items from the Academy Store and decorate your dorm room. • Read “What is a search engine” and “How to research with a search engine” on the worksheet.
Develop and Practice (20 min)	<ul style="list-style-type: none"> • Direct students to open a web browser and navigate to an acceptable search engine. Have them attempt the search engine challenge on the worksheet. While they search, make sure they are using the reliable sites. (Worksheet, part 3)(10 min) <ul style="list-style-type: none"> • <i>George Washington was born on Feb. 22, 1732</i> • <i>There are eight planets in the Solar System</i> • <i>The capital of New York state is Albany</i> • <i>The scientific name for humans is Homo Sapiens</i> • <i>Leonardo DaVinci painted the Mona Lisa</i> 	<ul style="list-style-type: none"> • Use the search engine to search for the answers to the questions on the worksheet. Find reliable websites and write down the answers in the worksheet.
Reinforce (10 min)	<ul style="list-style-type: none"> • Discuss the four website dangers and how to determine if a website is reliable again with students (addressed in lesson 9). (10 min) 	<ul style="list-style-type: none"> • Discuss the four website dangers and how to recognize safe and reliable websites again.

Learning Outcomes

At the end of this lesson, students will be able to:

- Demonstrate the effective use of a search engine to locate a website or web address.
- Follow basic safe computing steps when using a search engine.
- Understand how a search engine works.
- Understand cyber threats caused by accessing unwanted websites and measures of protection.
- Use information on safe computing presented in this lesson and previous lessons in making decisions about websites they come across while using a search engine.



Worksheet 11: Search Engines & Research Tips

Date:

Name:

1. What is a search engine?

A website that lets you search for web pages and other documents on the Internet that contain a certain word or phrase. Examples: www.google.com, www.yahoo.com, www.bing.com and www.ask.com.



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2. How to research with a search engine

1. Figure out what you need to know.

It helps to start out by writing down everything you



already know about your topic and what you think you may need to know for your report. If you don't know anything about your topic, you can also try an encyclopedia website like "Encyclopedia Britannica," or talk to a librarian or your teacher.

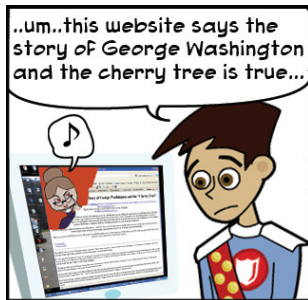
2. Combine keywords to focus your search.

If you just search for "George Washington," you will find lots of information that might not be necessary for your report. Use several keywords inside "quotation marks" to focus your search results and use what you learn on one site to help focus your next search.



3. Double-check your information.

Look for sites that list their references and source materials, which will explain where the author found the information. Always double-check the information you find on the Internet against an offline trusted resource to make sure it is correct. Do not be fooled by Ms. Information!



4. Bookmark reliable sites.

When you find a site that is a good resource, add it to your web browser favorites or bookmarks so you can find it again easily. You never know when you will need it again, and sites you know to be reliable are a great place to start when researching a new topic.



When you use a search engine, you must be accurate when you spell or paraphrase the topic you seek! If you misspell a word, the search engine will not find websites that are helpful and could even lead you to a risky website that could install malware on your computer.



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3. Search engine challenge!

1. When was George Washington born?
2. How many planets are in the Solar System?
3. What is the capital of New York state?
4. What is the scientific name for humans?
5. Who painted the Mona Lisa?

CARNEGIE CAPEETS: THE MYSECURECYBERSPACE GAME

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Hint Sheet

03

Tips for recognizing Website Dangers

Some websites contain Dangers that can damage your computer or steal your personal information. When you are exploring websites, watch out for the Following 4 Dangers:

1 Links that download Files

These links usually ask if you want to save or open the file when you click on them and can say something like "Click to Download" or "Download Now"

2 Advertisements and Popups

Advertisements have content that is different than the website they are on (like a car Ad on a website about puppies), and sometimes they say "Ad" or "Advertisement" on them

3 Forms that ask for Personal Information

Forms can be a Danger if they ask for personal information like your full name or credit card number

4 Threatening, hurtful, or adults-only content

Content can be a Danger if it makes you feel icky or uncomfortable or says Adults-only or "You must be 18 or older" on it