



# Lesson 9: Online Data

## Learning Objectives

- Introduce terms and definitions related to websites.
- Provide students with basic knowledge on how to distinguish safe and credible websites.
- Raise students' awareness of safety steps to take when using a search engine.

## Materials You Will Need

- Computers that have a web browser installed and can access a search engine
- Worksheet for Lesson 9: Online Data
- Writing utensils

## Classroom Activities (Duration: 45 minutes)

Timeline	Teacher Instructions	Student Activities
Introduce Concepts (15 min)	<ul style="list-style-type: none"> <li>• Hand out the worksheet and explain the cyber defense terms. Have students fill in the blanks on the worksheet. (Worksheet, part 1) (10 min)               <ul style="list-style-type: none"> <li>• URL: <i>the address of a website</i></li> <li>• Home page: <i>the main page of a website</i></li> <li>• Web page: <i>a document on the Internet that you can view with a web browser</i></li> <li>• Website: <i>a collection of web pages</i></li> <li>• Web browser: <i>a software program that you use to "surf the Web"</i></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Listen to the definitions of the cyber defense terms and fill in the blanks on the worksheet.</li> </ul>
Develop and Practice (20 min)	<ul style="list-style-type: none"> <li>• Direct students to open a web browser and navigate to an acceptable search engine. Have them search for information on the "Egyptian Pyramids." (5 min)</li> <li>• Explain the strategies for determining if a website is reliable. (Worksheet, part 2) (10 min)</li> <li>• Have students examine their search results. As a class, visit each website and discuss what you find. (10 min)               <ul style="list-style-type: none"> <li>• Discuss what makes an author credible</li> <li>• Discuss how the date something was published might affect its credibility</li> <li>• Discuss what it means for a site to look "professional" (few advertisements, correct information, no typos, good design)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Open a web browser and visit a search engine. Type "Egyptian Pyramids" in the Search box and click the Search button.</li> <li>• Read part 2 of the worksheet and understand how to evaluate the websites.</li> <li>• Visit each website in the search engine results and determine which websites are reliable by using the check list on the worksheet.               <ul style="list-style-type: none"> <li>• Discuss the evaluation criteria with the class as you evaluate each site.</li> </ul> </li> </ul>
Reinforce (10 min)	<ul style="list-style-type: none"> <li>• Discuss why Wikipedia might not be considered credible but how it can be used to find other resources. (3 min)</li> <li>• Read through the checklist in the worksheet one more time with students (Worksheet) (2 min)</li> </ul>	<ul style="list-style-type: none"> <li>• Discuss Wikipedia's reliability as a resource and other ways you can use it.</li> <li>• Read the worksheet again.</li> </ul>

## Learning Outcomes

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

- Define the cyber defense terms introduced in this lesson.
- Understand the risk associated with visiting non credible websites.
- Apply critical thinking online skills in assessing websites to visit.
- Demonstrate effectively the use of a search engine to locate a website or web address.
- Recognize safe online behavior when searching for a web address, e.g. visiting a site of a well-known company.



# Worksheet 9: Online Data

Date:

Name:

## 1. Cyber Defense Terms

The address of a website. The Carnegie Cyber Academy's is: <http://www.carnegiecyberacademy.com>.

a) The main page of a website.  
b) The page that loads in your web browser when you open it.

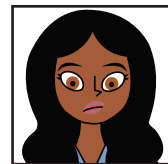
A document on the Internet that you can view with a web browser. They can contain words, pictures and links.



A collection of related Web pages.

A software program that you use to "surf the Web." Some popular ones include Internet Explorer, Firefox and Safari.

The Internet can be a great resource as long as you know how to use it. You can learn how to judge if a site is a good or bad resource.



Maya,  
Databank  
Supervisor

## 2. Is it Safe? Is it Credible?

When doing research, you need to determine whether or not a website is a safe and reliable resource. Ask yourself these questions:

### 1. Who wrote this?

Check to see if the website has an author or an organization that runs it. Real news articles and other publications usually have the authors' name listed. Try to determine if the author would be considered an expert on the topic they are writing about.

### 2. Where did they get their information?

Look for sites that include lists of references and source materials, which will explain where the author found the information. If you can, check the references and source materials they list to make sure those are also reliable.

### 3. How old is this?

Find out when the website was created and when it was last updated. Sometimes old information can be incorrect, especially if it is related to current events.

### 4. What kind of domain is it?

The domain is the last part of the URL. Typically .gov sites are government sites, .edu sites are educational sites, like a school or college, and .org sites are usually non-profit organizations, like churches and museums. These are more likely to be reliable sites.

### 5. Does it look professional?

Reliable sites are usually up-to-date and look very professional. If a site is full of errors, such as typos and broken links, and inconsistencies, such as images and advertisements that don't relate to the content, it is much less likely to be a reliable site.