

**FOOD SCIENCE AND TECHNOLOGY**  
**Evaluation of Nutrition Websites**  
**Grade Levels: 9-12**

**Concept:** Evaluation of Websites

**Comprehensive Standard:** 6.5 Evaluate the impact of science and technology on food composition and safety, nutrition, and wellness of individuals and families

**Technical Standard(s):** 6.5.1 Assess current technology to locate food and nutrition information

**LESSON COMPETENCIES**

- Identify criteria for evaluating web sites
- Evaluate web sites using the criteria

**Anticipated Behavioral Outcomes**

- Students evaluate the credibility of websites when researching nutrition and health information.
- Students use appropriate websites for sound nutrition information

**Resources Needed:**

- Internet access for students to evaluate websites
- Copies of handouts for all students

**References for teachers and students:**

Several library web pages provide criteria for evaluating Web pages. A good example is found at [www.library.cornell.edu/okuref/webcrit.html](http://www.library.cornell.edu/okuref/webcrit.html).

An excellent article called “Exploring Nutrition Information on the Internet” can be accessed at <http://cetulare.ucdavis.edu/news/n0398exp.htm>.

A fact sheet, “Nutrition on the Internet”, discusses guidelines for evaluating nutrition websites is available for downloading and printing from the *Nutrition Information Resource Center at Clemson University* at [www.clemson.edu/nutriweb/search\\_results.php?keywords=internet&slink=1&sonline=1&slib=1](http://www.clemson.edu/nutriweb/search_results.php?keywords=internet&slink=1&sonline=1&slib=1).

“The ABCs of the Internet: Teaching Media Literacy in the Age of the Internet” by educator Kathy Schrock is available at her website. The article was updated in 2002. This site has articles, lesson plans, handouts and checklists for evaluating websites. <http://school.discovery.com/schrockguide/eval.html>.

An article from the *Oklahoma State University Cooperative Extension Service*, “Evaluating Nutrition Information on the Internet”, is available at [www.fcs.okstate.edu/cnep/links/evaluating.htm](http://www.fcs.okstate.edu/cnep/links/evaluating.htm).

For more information, read *Medline Plus*: “Guide to Healthy Web Surfing” available at [www.nlm.nih.gov/medlineplus/healthywebsurfing.html](http://www.nlm.nih.gov/medlineplus/healthywebsurfing.html).

The FDA has an article entitled “Health Information On-Line” [www.cfsan.fda.gov/~dms/fdonline.html](http://www.cfsan.fda.gov/~dms/fdonline.html) to assist consumers in determining the reliability

of health related information on line. It also provides a list of some credible websites for health information. This article can be directly accessed at [www.cfsan.fda.gov/~dms/fdonline.html](http://www.cfsan.fda.gov/~dms/fdonline.html).

**NEW** An easy to read article, “Knowing What’s What and What’s Not – The 5 W’s (and 1 “H”) of Cyberspace” is available at the *Media Awareness* site: [www.media-awareness.ca/english/resources/special\\_initiatives/wa\\_resources/wa\\_shared/tipsheets/5Ws\\_of\\_cyberspace.cfm](http://www.media-awareness.ca/english/resources/special_initiatives/wa_resources/wa_shared/tipsheets/5Ws_of_cyberspace.cfm). There are links to other articles also.

*Trash or Treasure? How to Evaluate Internet Resources* a learning module available at [www.bcpl.net/~sullivan/modules/tips/eval.html](http://www.bcpl.net/~sullivan/modules/tips/eval.html).

### **Background Information:**

The Internet is a popular source of nutrition and health information. According to a Harris Interactive poll, an estimated 100 million consumers sought health information on the Internet in the year 2000, up from 70 million in 1999 (*Wall Street Journal*, 12/29/00).

Adolescents frequently use the Internet for health and nutrition information. Researchers in New York State in a study of 412 ethnically diverse 10<sup>th</sup> graders found that 96% of these adolescents used the Internet and 49% used it to obtain health information (Borzekowski, D.L. and Rikert, V. (2001). *Adolescent cyber surfing for health information: A new resource that crosses barriers*. Archive of Pediatric Adolescent Medicine, 155, 813-17).

Many legitimate providers of reliable health and nutrition information, including the FDA, the USDA and other government agencies are using the Web to offer brochures and other in-depth information on specific topics.

While the Internet can be an excellent source of reliable nutrition and health information, there are also numerous sites that may sound “official” but are not supported by reputable organizations. Anyone can post information on the Internet and some groups intentionally choose a name that sounds credible.

The FDA suggests considering the following questions to help determine the reliability of a website:

- Who maintains the site? – Government or university run sites are among the best sources for scientifically sound information
- Is there a listing of the names and credentials of those responsible for preparing and reviewing the site?
- Does the site link to other sources of health and nutrition information? A reputable organization will not position itself as the sole source of information on any topic
- When the site was last updated. The more current the site, the more likely the information is current.
- Are informative graphics and multimedia files such as video clips available?
- Does the site charge an access fee? Many reputable sites for health and nutrition information are free, including government sites. If a fee is charged, be sure that it offers value for the money.

*The Food and Nutrition Science Alliance (FANSA) made up of the American Dietetic Association, American Society for Clinical Nutrition, American Society for*

*Nutritional Sciences* and the *Institute of Food Technologists* have developed a list of ten “red flags” that signal bad nutrition advice. They are:

1. Recommendations that promise a quick fix.
2. Strong warnings of the dangers of a single product or regimen
3. Claims that sound too good to be true
4. Simplistic conclusions drawn from a complex study
5. Ideas based on a single study
6. Dramatic statements that are not supported by reputable scientific organizations
7. Lists of “good” and “bad” foods
8. Recommendations made to help sell a product
9. Recommendations based on studies without a peer review
10. Recommendations from studies that ignore differences among individuals or groups

### **Learning Activities:**

#### **Middle School Level**

- Read the fact sheet, “Nutrition on the Internet” (see reference list). Discuss the following questions with students:
  - What organizations are likely to be the most accurate sources of nutrition information on the Web? How are these sites identified?
  - Which websites are typically the least reliable sources of nutrition information on the Web? How are these sites identified?
  - What are some of the things consumers should look out for?
- Discuss the criteria to consider when evaluating a nutrition/health related website. Ask students to brainstorm what consumers should look for when evaluating a site.
- Working individually, ask students to go through the process of evaluating a website at [www.quick.org.uk](http://www.quick.org.uk) NOTE TO TEACHER: You could go through this with the class also if so desired.
- Upon completion of this activity, ask students to develop a Top Ten List of things to watch for when evaluating the accuracy and reliability of a website.
- Students evaluate a nutrition or wellness website using the “Critical Evaluation Survey: Middle School Level” available at Kathy Schrock’s website (<http://school.discovery.com/schrockguide/eval.html>).

#### **High School Level**

- Read the article, “Evaluating Nutrition Information on the Internet”, ([www.fcs.okstate.edu/cnep/links/evaluating.htm](http://www.fcs.okstate.edu/cnep/links/evaluating.htm)). Discuss the following questions with students:
  - What is the first step to use to identify the source of a website?
  - Why are commercially sponsored sites less likely to be reliable than government sites or those sponsored by educational institutions?
  - How might you identify if a site is providing biased information?

- What is meant by the author's credentials? What would be some examples of information about the author that would indicate his/her reliability and authority to discuss the subject?
- Discuss the criteria to consider when evaluating a nutrition/health related website. Ask students to brainstorm what consumers should look for when evaluating a site.
- If time allows, have students complete the module on evaluating Internet resources, *Trash or Treasure? How To Evaluate Internet Resources* at [www.bcpl.net/~sullivan/modules/tips/eval.html](http://www.bcpl.net/~sullivan/modules/tips/eval.html).
- Using the [Website Evaluation Form](#), have students compare these two sites on diets/fad diets:

FadDiets.com at [www.faddiet.com/](http://www.faddiet.com/)

Fad Diets: What You Need to Know at <http://familydoctor.org/784.xml>

## Web Site Evaluation Form

Name (s) \_\_\_\_\_ Website url \_\_\_\_\_

Evaluation of Web Documents	Indicators of the Criteria Found on the Website – list specific examples that address the questions
<b>Authority</b> <ul style="list-style-type: none"><li>• Who published the document?</li><li>• Check the domain of the document, what institution publishes this document?</li><li>• Does the publisher list their qualifications?</li></ul>	
<b>Objectivity</b> <ul style="list-style-type: none"><li>• What objectives does the page meet?</li><li>• How detailed is the information?</li><li>• Are any opinions or bias expressed by the author?</li></ul>	
<b>Currency</b> <ul style="list-style-type: none"><li>• When was the site produced?</li><li>• When was it updated?</li><li>• How up-to-date are the links?</li></ul>	
<b>Coverage</b> <ul style="list-style-type: none"><li>• Are links (if any) evaluated and do they complement the documents' theme?</li><li>• Is it all images or a balance of images and text?</li><li>• Is the information cited correctly?</li></ul>	

Adapted from the *Five Criteria for Evaluating Web Pages* from the Cornell Library found at [www.library.cornell.edu/okuref/webcrit.html](http://www.library.cornell.edu/okuref/webcrit.html)