Site Credibility

Grade Level: 4-8

Objectives:
1. Students will identify and classify sources of information for validity according to the source.
2. Through the use of a concept map, students will list reasons why web pages should be evaluated for their validity and effectiveness.
3. Through the use of classroom computers, students will evaluate and rank a variety of web pages based on the criteria on a given rubric.
4. In a writing sample in their journals, students will summarize pros and cons of each web site that is evaluated.
5. During an in class presentation using the overhead, students will work with partners to distinguish between one web site that is valid and reliable and one site containing non reliable sources.

Materials:
Three short news briefs (from resource provided, or fabricated by the teacher), story from www.urbanlegends.com, rubric for evaluating websites (copied for students), URL's of websites for use in whole-group activity (previewed by teacher), overhead projector, overhead projector sheets, overhead markers for students, computers with internet connections, projector for computer

Procedures:
1. Write the words "trustworthy" and "reliable" on the board. As a group, brainstorm what these words mean, how they are related, and what kinds of things might display those characteristics. Group these items into a concept map.
2. Using the overhead as a visual aid, read three short news briefs that you heard that very day (the teacher can fabricate these). After reading each one, tell the source of that information. The sources to be used for the stories include: a child on the bus, an unknown adult in the school, and the principal. Students should discuss with members of their table groups and agree on one of the choices to select as a reliable source of information. Students should tell why they made their selection.
3. Using a story that is too far fetched to believe, the teacher reads a story that was found on www.urbanlegends.com. The teacher shares that the information was indeed obtained from the internet. Students discuss in small groups, and then report to the class reasons why sites should be evaluated for validity and user friendliness.
4. Using a computer with an internet connection and a projector hooked up to it, the teacher will select a web site and evaluate the site using the given rubric. Students should help and this will serve as an example for the students to view.
5. Using the same rubric as demonstrated before; students will work with partners to evaluate three web sites.

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6. Students will work with partners to write summaries in journals of their evaluations of three web sites. They should include pros and cons of each of the three sites visited.
7. Students will work with partners to prepare an overhead sheet with a brief description of two web sites they evaluated. They must be prepared to discuss which of the two sites was more credible and user friendly.

Closing:
Remind students that there are not any requirements that have to be met for someone to post a website; therefore, it is crucial that they always check the credibility, accuracy and currency of a website. Ask them to think about how this will change the way in which they surf the web. If the time and technology are available, the Jo Cool/Jo Fool game on the website below is a good supplemental activity to this lesson.

Supplemental Website:
http://www.media-awareness.ca/english/special_initiatives/games/joecool_joefool/jo_cool_teachers.cfm

Resources for finding good and bad Web sites for students to evaluate (also listed on "Web site evaluation resources" sheet):
- http://muse.widener.edu/Wolfgram-Memorial-Library/webevaluation/examples.htm
- http://libweb.sonoma.edu/assistance/eval
- http://www.lib.berkeley.edu/TeachingLib/Guides/Internet/EvaluateWhy.html

Extension Ideas:
- *All subjects:* Combine this lesson with a research report by using the lesson plan "Using Kid-Friendly Search Engines" by Sam Perdue. This can be found at http://www.cerias.purdue.edu/education/k-12/teaching_resources/lessons_presentations/
- *All subjects:* Have students complete the "Internet Hoax Scavenger Hunt" to reinforce the idea that a great deal of false information can be found on the Internet. Lesson can be found at http://www.cerias.purdue.edu/education/k-12/teaching_resources/lessons_presentations/
- *All subjects:* Have students complete a Web quest or scavenger hunt and evaluate the Web sites that are used. For more information about Web quests and scavenger hunts, see http://www.cerias.purdue.edu/education/k-12/teaching_resources/information_security_resources/details.php?id=20&baseid=4
- *Mathematics:* Have students research the real-life applications of the topic that you are studying and have them critically evaluate the Web sites that they use for their reports.
- *Mathematics:* Have students search for and evaluate Web sites related to a current event that involves statistics.
- *Mathematics and Government:* Using the book "Visual Display of Quantitative Information" by Edward R. Tufte, have students investigate the way in which newspapers and Web sites can misrepresent numerical data.
- *Science:* Have students research a current health or science issue and evaluate Web sites that provide information about each side of the issue.
- *Social Studies:* Have students research a current social issue and evaluate Web sites that provide information about each side of the issue.
- *Language arts:* As a culminating research activity, have students create a Web page that exhibits all the

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characteristics of an "excellent" Web site, according to the attached rubric.

- *Language arts:* Combine persuasive writing and creative writing activities to have students create bogus Web pages.

Indiana Academic Standards

Grade 4:
Language Arts:
4.2.4   Evaluate new information and hypotheses (statements of theories or assumptions) by testing them against known information and ideas.
4.2.5   Compare and contrast information on the same topic after reading several passages or articles.
4.2.6   Distinguish between cause and effect and between fact and opinion in informational text.
4.7.7   Emphasize points in ways that help the listener or viewer follow important ideas and concepts.
4.7.10 Evaluate the role of the media in focusing people's attention on events and in forming their opinions on issues.

Science
4.2.6   Support statements with facts found in print and electronic media, identify the sources used, and expect others to do the same.
4.2.7   Identify better reasons for believing something than "Everybody knows that ..." or "I just know," and discount such reasons when given by others.

Social Studies
4.1.5   Using primary source and secondary source materials, generate questions, seek answers, and write brief comments about an event in Indiana history.
4.2.8   Use a variety of information resources to research and write brief comments about a position or course of action on a public issue relating to Indiana's past or present.
4.5.6   Investigate the contributions and challenges experienced by people from various cultural, racial, and religious groups in Indiana during different historical periods by reading biographies, historical accounts, stories, and electronic media, such as CD-ROMs and Web sites.

Grade 5:
Language Arts:
5.2.1   Use the features of informational texts, such as formats, graphics, diagrams, illustrations, charts, maps, and organization, to find information and support understanding.
5.2.3   Recognize main ideas presented in texts, identifying and assessing evidence that supports those ideas.
5.2.4   Distinguish among facts, supported inferences, and opinions in text.
5.3.7   Evaluate the author's use of various techniques to influence readers' perspectives.
5.7.4   Select a focus, organizational structure, and point of view for an oral presentation.
5.7.5   Clarify and support spoken ideas with evidence and examples.
5.7.8   Analyze media as sources for information, entertainment, persuasion, interpretation of events, and transmission of culture.

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Science

5.1.2   Begin to evaluate the validity of claims based on the amount and quality of the evidence cited.

5.2.8   Recognize when and describe that comparisons might not be accurate because some of the conditions are not kept the same.

Social Studies

5.1.22   Identify and interpret <u>primary source</u> and <u>secondary source</u> materials that pertain to a problem confronting people during the founding period of the United States.

5.2.11   Use a variety of <u>information resources</u> to identify and evaluate contemporary issues that involve civic responsibility, individual rights, and the common good.

Grade 6:

Language Arts:

6.2.1   Identify the structural features of popular media (newspapers, magazines, online information) and use the features to obtain information.

6.2.6   Determine the adequacy and appropriateness of the evidence presented for an author's conclusions and evaluate whether the author adequately supports inferences.

6.2.8   Note instances of persuasion, propaganda, and faulty reasoning in text.

6.7.6   Support opinions with researched, documented evidence and with visual or media displays that use appropriate technology

6.7.9   Identify persuasive and propaganda techniques used in electronic media (television, radio, online sources) and identify false and misleading information.

Science

6.1.2   Give examples of different ways scientists investigate natural phenomena and identify processes all scientists use, such as collection of relevant evidence, the use of logical reasoning, and the application of imagination in devising <u>hypotheses</u> and explanations, in order to make sense of the evidence.

6.1.8   Describe instances showing that technology cannot always provide successful solutions for problems or fulfill every human need.

6.2.8   Analyze and interpret a given set of findings, demonstrating that there may be more than one good way to do so.

Social Studies

6.1.21   Form research questions and use a variety of <u>information resources</u> to obtain, evaluate, and present historical data on the people, places, events, and developments in the history of Europe and the Americas.

6.2.9   Use data gathered from a variety of <u>information resources</u> to compare different forms of government in Europe and the Americas.

6.5.8   Use a variety of resources, including newspapers, magazines, Web sites, and data bases, to collect and analyze data on cultural factors in countries of Europe and the Americas. Use charts, graphs, and other data to compare and hypothesize the relation of these factors to a nation's development.

Grade 7:

Language Arts:

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7.2.1 Understand and analyze the differences in structure and purpose between various categories of informational materials (such as textbooks, newspapers, and instructional or technical manuals).

7.2.4 Identify and trace the development of an author's argument, point of view, or perspective in text.

7.2.6 Assess the adequacy, accuracy, and appropriateness of the author's evidence to support claims and assertions, noting instances of bias and stereotyping.

7.7.4 Arrange supporting details, reasons, descriptions, and examples effectively.

7.7.5 Use speaking techniques — including adjustments of tone, volume, and timing of speech; enunciation (clear speech); and eye contact — for effective presentations.

7.7.7 Analyze the effect on the viewer of images, text, and sound in electronic journalism; identify the techniques used to achieve the effects.

7.7.11 Deliver persuasive presentations that:
- state a clear position in support of an argument or proposal.
- describe the points in support of the proposal and include supporting evidence.

Science

7.1.4 Describe that different explanations can be given for the same evidence, and it is not always possible to tell which one is correct without further inquiry.

7.1.8 Explain that technologies often have drawbacks as well as benefits. Consider a technology, such as the use of pesticides, which help some organisms but may hurt others, either deliberately or inadvertently.

7.2.8 Question claims based on vague attributes, such as "Leading doctors say...," or on statements made by celebrities or others outside the area of their particular expertise

Social Studies

7.1.20 Form and respond to historical questions and use a variety of information resources to find and evaluate historical data on the people, places, events, and developments that have played a part in the history of Africa, Asia, and the Southwest Pacific.

7.2.9 Use data gathered from a variety of information resources to research current political trends and events in African, Asian, and Southwest Pacific countries.

7.3.15 Use a variety of information resources to identify current issues related to natural resources in selected countries in Africa, Asia, and the Southwest Pacific, and examine contrasting perspectives on these issues.

Mathematics

7.6.4 Analyze data displays, including ways that they can be misleading. Analyze ways in which the wording of questions can influence survey results.

Grade 8:

Language Arts:

8.2.1 Compare and contrast the features and elements of consumer materials to gain meaning from documents.

8.2.6 Evaluate the logic, internal consistency, and structural patterns of text.

8.7.2 Match the message, vocabulary, voice modulation (changes in tone), expression, and tone to the audience and purpose.

8.7.6 Use audience feedback, including both verbal and nonverbal cues, to reconsider and modify the organizational structure and/or to rearrange words and sentences for clarification of meaning.

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8.7.9   Interpret and evaluate the various ways in which visual image makers (such as graphic artists, illustrators, and news photographers) communicate information and affect impressions and opinions.

Science
8.1.4   Explain why accurate record keeping, openness, and replication are essential for maintaining an investigator's credibility with other scientists and society.
8.1.7   Explain why technology issues are rarely simple and one-sided because contending groups may have different values and priorities.
8.2.9   Explain why arguments are invalid if based on very small samples of data, biased samples, or samples for which there was no control sample.
8.2.10   Identify and criticize the reasoning in arguments in which fact and opinion are intermingled or the conclusions do not follow logically from the evidence given, an analogy is not apt, no mention is made of whether the control group is very much like the experimental group, or all members of a group are implied to have nearly identical characteristics that differ from those of other groups.
8.5.7   Recognize and describe the danger of making over-generalizations when inventing a general rule based on a few observations.

Social Studies
8.1.28   Identify, evaluate, and distinguish fact from opinion in a variety of information resources; differentiate between historical facts and interpretations, recognizing that the facts the historian reports reflects his or her judgment of what is most significant about the past.
8.1.29   Distinguish in historical narratives between unsupported expressions of opinion and informed hypotheses grounded in historical evidence.
8.2.13   Research and defend positions on issues in which fundamental values and principles related to the Constitution of the United States are in conflict, using a variety of information resources.
8.4.11   Compare and contrast job skills needed in different time periods in United States history and use a variety of information resources to research jobs and careers.
8.5.10   Use a variety of information resources to identify examples of traditional arts, fine arts, music, and literature that reflect the ideals of American democracy in different historical periods and plan presentations on or performances of selected works.

Mathematics
8.6.1   Identify claims based on statistical data and, in simple cases, evaluate the reasonableness of the claims. Design a study to investigate the claim.

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News Briefs

1. We're having a tornado drill and after that we're going to have a field trip to someplace really cool. Plus I heard that there was going to be a famous person coming to school today, but there was a bomb threat so they couldn't make it. (source – school bus conversations)

2. Our school is the best one around. We had the highest test scores and will probably win an award. You will get to have a HUGE party to celebrate. (source- an unknown adult that is passing through)

3. We are going to have a celebration for a job well done this year. We did very well our standardized tests. We will have a pep rally on Friday afternoon to recognize this accomplishment. Also, be on the alert- we may have a storm drill this week. Be sure you know where you would go! (source- principal)

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Name_____   Date_____

Web Site Evaluation Rubric

Modified from "Web Evaluation for Intermediate Grades" developed by Tammy Payton. Original rubric can be found at http://www.siec.k12.in.us/~west/edu/rubric2.htm

Name of Site:_____

 URL:_____

Type of Site (personal website, organization's website, government website, company's website, etc.):

_____

Purpose of Site (to give information to help you learn, to try to sell you something, to try to change your opinion about something, etc.):

_____

Rate the website in the following areas using this scale:
1- Horrible
2- Poor
3- OK
4- Good
5- Excellent

<u>Design of Website</u>

Looks official (no spelling mistakes, clear format, good graphics)   1   2   3   4   5

Moves from page to page easily   1   2   3   4   5

<u>Content:</u>

Are there facts on the page that you were looking for?   1   2   3   4   5

Links to other websites are useful   1   2   3   4   5

Information is useful   1   2   3   4   5

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Technical Elements:

All the links to other sites work   1 2 3 4 5

Page loads quickly   1 2 3 4 5

Credibility:

Author's name and email address are given   1 2 3 4 5

Name of the organization sponsoring the page is given   1 2 3 4 5

Gives a recent date for the last time the page was updated   1 2 3 4 5

Your score: /50

Using the score that the website earned, and thinking about the type and purpose of the site, write a short reflection about why or why not this website is one on which you can find true information.

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