

Youngstown City Schools

Informational Research Projects/Papers, Grades 7-12 - - Science and Math (APA)

[there is a similar guide for the Argumentative Research Projects/Papers]

Timeframes for Preparing Cards and Completing Informational Papers / Projects			
Grade	Subject Area	Approximate Timeframe for Cards Due	Approximate Timeframe for ELA to Do Paper
7	Social Studies	End of November	Early December
8	Science	Late January	Early February
9	Physical Science	Early October	Late October
10	Amer/Wld History	Mid-November	Early December
11	Government	December	Early January
12		TBA with ELA	TBA with ELA

Specs for the Informational Research Paper / Project					
Grade	Primary Sources	Secondary Sources	Indirect Quotes	Direct Quotes	Length of Paper
7	3	3	2 / page	2	2 – 3 pages
8	3	3	2 / page	2	2 – 3 pages
9	3	3	2 / page	2	3 pages
10	3	4	2 / page	3	4 – 5 pages
11	4	5	3 / page	4	5 pages
12	4	5	3 / page	5	6-7 pages



Standards Checklist for the Information Paper - - Grade 8 ELA

NOTE TO TEACHERS: "Student-Friendly" Rubric Attached

Included In Pre-Write	NOTE: Content Teachers should handle WHST 8.8 and the Pre-Write Items	editing			
		missing	weak	partial	strong
Gathering Information (WHST 8.8 and ELA W 8.8)					
	Relevant information is collected (i.e., relates to the <u>position</u> taken and the <u>counter-claim</u>).				
	Information is recorded appropriately (paraphrased and/or direct quotations; avoidance of plagiarism).				
	Student shows command of vocabulary used in the information collected by using it in the text. (ELA L 8.4)				
	Information is taken from APPROVED sources, including ALL of the following - - <input type="checkbox"/> digital <input type="checkbox"/> print <input type="checkbox"/> primary <input type="checkbox"/> secondary				
	Search terms are used correctly.				
	The sources used are credible, accurate, timely, and unbiased.				
	Citations follow a standardized format. (W 8.2 a)				
The Pre-Write					
	Information collected is organized into the major topics and ideas of the paper, focused on clarifying the position, acknowledging the validity of the counterclaim, and fully developing the position with support.				
	The outline reflects a logical development and support of each idea (facts, details, examples, etc.).				
	The quotations used are appropriate to the point and correctly documented.				
The Finished Product (WHST 8.1) (ELA W 8.2)					
	The Introduction sets forth the topic (central idea, thesis) clearly and previews what is to follow (W 8.2 a)				
	The topic is developed with relevant, well-chosen facts, definitions, concrete details, quotations, examples, etc. (W 8.2 b)				
	The transitions are appropriate and varied to create cohesion and clarify the relationships among ideas and concepts. (W 8.2 c)				
	The language / vocabulary used is precise and domain-specific to inform about or explain the topic. (W 8.2 d)				
	The style and tone are formal, objective, and consistently maintained. (W 8.2 e)				
	The conclusion is a statement or section that follows from and supports the information or explanation presented. (W 8.2 f)				
	The physical presentation (headings, graphics, charts, tables) enhances the message of the paper and aids comprehension. (W 8.2 a)				
	Technology was used effectively and efficiently to produce and publish writing. (W 8.6)				
	With assistance, the paper was strengthened as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed. (W 8.4 and W 8.5)				
Conventions					
	Observed standard English grammar and usage (L 8.1)				
	Used subject-verb agreement, verb tense, and verb mood correctly. (L 8.1b, d; and L 8.3)				
	Punctuation: commas to show a pause or break (L 8.2 a)				
	Punctuation: ellipses to show breaks in text (L 8.2 b)				
	Spelling (L 8.2 c)				



Student-Friendly Rubric for Planning, Gathering Information, and Organizing

SECTION 1: Planning the Paper and Gathering Information on Note-Cards (W 8.8 and WHST 8.8)

Component	Date Completed	0 Not evident	1 Attempted, but very weak	2 Evident, but incomplete	3 Evident, and fairly solid
1. Decided on a general topic					
2. Created a viable research question					
3. Drafted an effective <u>possible</u> organization					
<p>4. Located <u>relevant</u> print and electronic information from <u>approved*</u> primary and secondary sources</p> <p>[* = timely, unbiased, authoritative, accurate, developmentally appropriate]</p> <ul style="list-style-type: none"> ◇ a. primary (at least 3) ◇ b. secondary (at least 3) ◇ c. print ◇ d. electronic ◇ e. appropriate citation-bibliographic information 					
<p>5. Collected information from sources appropriately</p> <ul style="list-style-type: none"> ◇ a. paraphrased <u>indirect</u> quotes / references relevant to topic (at least 2 per page) ◇ b. recorded effective <u>direct</u> quotations (at least 2) 					
STUDENT RATING					
PEER RATING					
TEACHER RATING					



Guidelines for Planning, Gathering Information, and Creating the Note-Cards

CONTENT TEACHERS

- 1. Decide on a general topic**
(e.g., Greek or Roman gods or goddesses)
- 2. Create a research question**
(e.g., Which Greek gods and goddesses had a role in the Trojan War?)
- 3. Draft a possible organization [unless the needed material cannot be found].**
But remember, this possible “organization” may have to change, depending on the material found - - or not found.



Sample Organizational Outline to Guide the Research

Introduction (maybe 3 or 4 sentences)

Re-state the Research question

e.g., Which Greek gods and goddesses had a role in the Trojan War?

Rationale - - why this topic? What is its importance? How will it be helpful to know?

e.g., Many movies and stories have been written about the Trojan War and the Trojan Horse

e.g., Many Greek gods and goddesses are associated with that war - - this would help put them in a real context

How you plan to present the paper

e.g., Present a summary of the War . . . the Trojan Horse part . . .

e.g., Highlight the Greek gods and goddesses who were associated with it . . . their role

e.g., What we may have learned about modern warfare from this war . . . the Horse?

Body (maybe 3 paragraphs)

e.g., Paragraph 1

Summarize the War, stress on the Horse

Credit Homer (The Illiad)

e.g., Paragraph 2

Present a few of the prominent Greek gods and goddesses and their role

e.g., Paragraph 3

Describe some lessons learned. . . impact on modern warfare

Explain why War and Horse are still remembered today

Conclusion (maybe 3 or 4 sentences)

e.g., Say why and how the research was interesting and helpful

e.g., Suggest additional questions or areas of inquiry that turned up

4. Locate relevant information from approved* primary and secondary sources
[* timely, unbiased, authoritative, accurate, developmentally appropriate language]

Suggest **3 each** for the paper; NOTE: students may need to examine several before finding those that 'work.'

Primary (e.g., letters, treaties, maps, eye witness accounts, transcripts of phone calls or testimony, untouched video of actual incident, untouched photos)

Secondary (e.g., reference books, editorials, second-hand accounts, magazine articles and op-ed essays)

Standards require students to access a blend of **print** and **electronic** sources

Print (e.g., approved journals or periodicals; approved research books; approved collections of printed documents)

Electronic (e.g., approved web-sites, YouTubes, Prezi's, PowerPoints, etc.)

Record ACCURATE and APPROPRIATE citation information

See attached sample note-cards; NOTE: these are MLA format; APA may be the format selected by Math or Science.

5. Collect information from the approved, relevant sources

See attached sample note-cards

(a) Paraphrase - - don't plagiarize (INDIRECT quotes); use content-specific terms with awareness and practical knowledge.

It is suggested that teachers demonstrate this and give students practice doing it.

(a) Use effective DIRECT quotations

It is suggested that teachers demonstrate this and give students practice doing it.

See attached sample bibliographic citations; NOTE: these are MLA format; APA may be the format selected by Math or Science.

(b) It is suggested that students include at least 2 INDIRECT quotes per page and at least 2 DIRECT quotes in the 2 to 3-page paper. See

attached sample text for paper that includes DIRECT quote



Source Cards and Note-Cards
SOURCE Cards

BEFORE students begin their note cards, remind them to avoid plagiarism by **NEVER** recording a complete sentence. Instruct them to write the note-cards by topic so they can be sorted and then re-assembled as **TOPIC** piles.



SECTION 2: Writing the Paper (ELA W 8.2)

[Section 1: Planning the Paper and Gathering Information on Note-Cards - - See Page 2]

Component	Date Completed	0 Not evident	1 Attempted, but very weak	2 Evident, but incomplete	3 Evident, and fairly solid
Pre-Write					
6. Collected information was organized into a valid outline.					
7. Outline reflects logical development of ideas (facts, details, examples, etc.).					
8. Quotations used are appropriate to the content and are correctly structured.					
Finished Product					
9. Introduction clearly sets forth the topic (central idea, thesis), and previews what is to follow.					
10. Topic developed with relevant, effective facts, definitions, concrete details, quotations, examples, etc.					
11. Transitions appropriate and varied; create cohesion, and clarify the relationships among ideas and concepts.					
12. Language is precise, mature, and domain-specific to inform about or explain the topic.					
13. Style and tone are formal, objective, and consistently maintained.					
14. Conclusion follows from and supports the information or explanation presented.					
15. Physical presentation (charts, headings, graphics, tables) enhances the message of the paper and aids comprehension.					
16. Technology used effectively and efficiently to produce and publish writing.					
17. Writing was strengthened with assistance in editing.					
18. Grammar and usage correct					
19. Verbs used correctly (tense, agreement)					
20. Used commas to show a pause or break					
21. Used ellipses to show missing text					
22. Spelling was correct					
STUDENT RATING					
PEER RATING					
TEACHER RATING					



Sample Typographical Guidelines

Typestyle

Use a standard, easily readable typeface (e.g., Times New Roman) with a 12-font size.

Margins

- Except for page numbers (or a footer, if required), leave a one-inch margin around the text of your paper -- left, right, top, bottom. DO NOT justify lines at the right margin.
- Indent paragraphs $\frac{1}{2}$ inch; set and use tab key.
- Set-off quotations (those longer than four typed lines) should be indented one inch from the left margin.

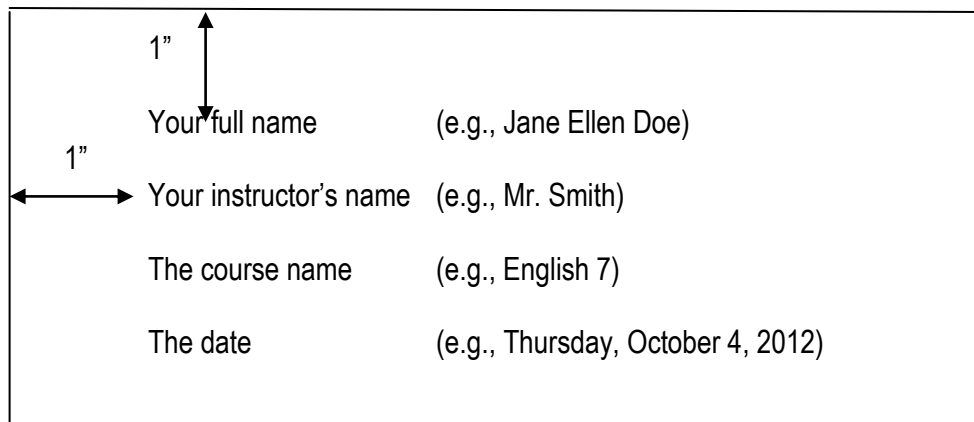
Spacing

The entire research paper must be double-spaced, including set-off quotations and the list of works cited.

Heading and Title

- Ask your teacher if the paper needs a title page. If so, ask to see a model. Then follow that format.

If a title page is not required, type in the upper left corner of page 1 -- double spaced as shown:



- After the above, double space once again, and center the title of the paper above the text. The title should NOT be underlined, and it should NOT be typed in all caps.

For Science and Math Research Citations

APA Citation Style

APA citation style refers to the rules and conventions established by the American Psychological Association for documenting sources used in a research paper. APA style requires both in-text citations and a reference list. For every in-text citation there should be a full citation in the reference list and vice versa.

The examples of APA styles and formats listed on this page include many of the most common types of sources used in academic research. For additional examples and more detailed information about APA citation style, refer to the [Publication Manual of the American Psychological Association](#) and the [APA Style Guide to Electronic References](#).

Also, for automatic generation of citations in appropriate citation style, use a bibliographic citation management program such as [Refworks](#) or EndNote. You can find more information on this in our [Citation Management](#) page.

DIRECT or INDIRECT QUOTES, or Reference Citations in Text

In APA style, in-text citations are placed within sentences and paragraphs so that it is clear what information is being quoted or paraphrased and whose information is being cited.

1. Works by a single author

The last name of the author and the year of publication are inserted in the text at the appropriate point.
... from theory on bounded rationality (Simon, 1945), we know ...

If the name of the author or the date appear as part of the narrative, cite only missing information in parentheses.

... Simon (1945) posited that ...

2. Works by multiple authors

When a work has two authors, always cite both names every time the reference occurs in the text. In parenthetical material join the names with an ampersand (&).

... as has been shown (Leiter & Maslach, 1998), the findings ...

In the narrative text, join the names with the word "and."

... as Leiter and Maslach (1998) demonstrated ...

When a work has three, four, or five authors, cite all authors the first time the reference occurs.

Incidentally, Kahneman, Knetsch, and Thaler (1991) found that ...

In all subsequent citations per paragraph, include only the surname of the first author followed by "et al." (Latin for "and others") and the year of publication.

Incidentally, Kahneman et al. (1991) found that ...

3. Works by associations, corporations, government agencies, etc.

The names of groups that serve as authors (corporate authors) are usually written out each time they appear in a text reference.

Smith's work while with the National Institute of Mental Health [NIMH] (2007) . . .

When appropriate, the names of some corporate authors are spelled out in the first reference and abbreviated in all subsequent citations. The general rule for abbreviating in this manner is to supply enough information in the text citation for a reader to locate its source in the Reference List without difficulty.

In that same report, (NIMH, 2007), Smith claimed

4. Works with no author

When a work has no author, use the first two or three words of the work's title (omitting any initial articles) as your text reference, capitalizing each word. Place the title in quotation marks if it refers to an article, chapter of a book, or Web page. Italicize the title if it refers to a book, periodical, brochure, or report.

The first article on climate change ("Climate and Weather," 1997) has indicated . .

According to the *Guide to Agricultural Meteorological Practices* (1981) that

Anonymous authors should be listed as such followed by a comma and the date.

One accusation about climate change (Anonymous, 2008)

5. Specific parts of a source

To cite a specific part of a source (always necessary for quotations), include the page, chapter, etc. (with appropriate abbreviations) in the in-text citation.

. . . as reported in the court transcript (Stigter & Das, 1981, p. 96).

De Waal (1996) overstated the case when he asserted that "we seem to be reaching ... from the hands of philosophers" (p. 218).

If page numbers are not included in electronic sources (such as Web-based journals), provide the paragraph number preceded by the abbreviation "para." or the heading and following paragraph.

(Mönnich & Spiering, 2008, para. 9)

REFERENCE LIST

References cited in the text of a research paper must appear in a Reference List or bibliography. This list provides the information necessary to identify and retrieve each source.

- **Order:** Entries should be arranged in alphabetical order by authors' last names. Sources without authors are arranged alphabetically by title within the same list.
- **Authors:** Write out the last name and initials for all authors of a particular work. Use an ampersand (&) instead of the word "and" when listing multiple authors of a single work. e.g., Smith, J. D., & Jones, M.
- **Titles:** Capitalize only the first word of a title or subtitle, and any proper names that are part of a title.
- **Pagination:** Use the abbreviation p. or pp. to designate page numbers of articles from periodicals that do not use volume numbers, especially newspapers. These abbreviations are also used to designate pages in encyclopedia articles and chapters from edited books.
- **Indentation*:** The first line of the entry is flush with the left margin, and all subsequent lines are indented (5 to 7 spaces) to form a "hanging indent".
- **Underlining vs. Italics*:** It is appropriate to use italics instead of underlining for titles of books and journals.

Two additional pieces of information should be included for works accessed online.

- **Internet Address**:** A stable Internet address should be included and should direct the reader as close as possible to the actual work. If the work has a digital object identifier (DOI), use this. If there is no DOI or similar handle, use a stable URL. If the URL is not stable, as is often the case with online newspapers and some subscription-based databases, use the home page of the site you retrieved the work from.
- **Date:** If the work is a finalized version published and dated, as in the case of a journal article, the date within the main body of the citation is enough. However, if the work is not dated and/or is subject to change, as in the case of an online encyclopedia article, include the date that you retrieved the information.

1. Articles in journals, magazines, and newspapers

References to periodical articles must include the following elements: author(s), date of publication, article title, journal title, volume number, issue number (if applicable), and page numbers.

a. Journal article, one author, accessed online

Ku, G. (2008). Learning to de-escalate: The effects of regret in escalation of commitment. *Organizational Behavior and Human Decision Processes*, 105(2), 221-232.
doi:10.1016/j.obhdp.2007.08.002

b. Journal article, two authors, accessed online

Sanchez, D., & King-Toler, E. (2007). Addressing disparities consultation and outreach strategies for university settings. *Consulting Psychology Journal: Practice and Research*, 59(4), 286-295. doi:10.1037/1065- 9293.59.4.286

c. Journal article, more than two authors, accessed online

Van Vugt, M., Hogan, R., & Kaiser, R. B. (2008). Leadership, followership, and evolution: Some lessons from the past. *American Psychologist*, 63(3), 182-196. doi:10.1037/0003-066X.63.3.182

d. Article from an Internet-only journal

Hirtle, P. B. (2008, July-August). Copyright renewal, copyright restoration, and the difficulty of determining copyright status. *D-Lib Magazine*, 14(7/8). doi:10.1045/july2008-hirtle

e. Journal article from a subscription database (no DOI)

Colvin, G. (2008, July 21). Information worth billions. *Fortune*, 158(2), 73-79. Retrieved from Business Source Complete, EBSCO. Retrieved from <http://search.ebscohost.com>

f. Magazine article, in print

Kluger, J. (2008, January 28). Why we love. *Time*, 171(4), 54-60.

g. Newspaper article, no author, in print

As prices surge, Thailand pitches OPEC-style rice cartel. (2008, May 5). *The Wall Street Journal*, p. A9.

Newspaper article, multiple authors, discontinuous pages, in print

Delaney, K. J., Karnitschnig, M., & Guth, R. A. (2008, May 5). Microsoft ends pursuit of Yahoo, reassesses its online options. *The Wall Street Journal*, pp. A1, A12.

2. Books

References to an entire book must include the following elements: author(s) or editor(s), date of publication, title, place of publication, and the name of the publisher.

a. No Author or editor, in print

Merriam-Webster's collegiate dictionary (11th ed.). (2003). Springfield, MA: Merriam-Webster.

b. One author, in print

Kidder, T. (1981). *The soul of a new machine*. Boston, MA: Little, Brown & Company.

c. Two authors, in print

Frank, R. H., & Bernanke, B. (2007). *Principles of macro-economics* (3rd ed.). Boston, MA: McGraw-Hill/Irwin.

d. Corporate author, author as publisher, accessed online

Australian Bureau of Statistics. (2000). *Tasmanian year book 2000* (No. 1301.6). Canberra, Australian Capital Territory: Author. Retrieved from [http://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/CA2568710006989...\\$File/13016_2000.pdf](http://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/CA2568710006989...$File/13016_2000.pdf)

e. Edited book

Gibbs, J. T., & Huang, L. N. (Eds.). (2001). *Children of color: Psychological interventions with culturally diverse youth*. San Francisco, CA: Jossey-Bass.

3. Research reports and papers

References to a report must include the following elements: author(s), date of publication, title, place of publication, and name of publisher. If the issuing organization assigned a number (e.g., report number, contract number, or monograph number) to the report, give that number in parentheses immediately after the title. If it was accessed online, include the URL.

a. Government report, accessed online

U.S. Department of Health and Human Services. (2005). *Medicaid drug price comparisons: Average manufacturer price to published prices* (OIG publication No. OEI-05-05-00240). Washington, DC: Author. Retrieved from <http://www.oig.hhs.gov/oei/reports/oei-05-05-00240.pdf>

b. Government reports, GPO publisher, accessed online

Congressional Budget Office. (2008). *Effects of gasoline prices on driving behavior and vehicle markets: A CBO study* (CBO Publication No. 2883). Washington, DC: U.S. Government Printing Office. Retrieved from <http://www.cbo.gov/ftpdocs/88xx/doc8893/01-14-GasolinePrices.pdf>

c. Technical and/or research reports, accessed online

Deming, D., & Dynarski, S. (2008). *The lengthening of childhood* (NBER Working Paper 14124). Cambridge, MA: National Bureau of Economic Research. Retrieved July 21, 2008, from <http://www.nber.org/papers/w14124>

4. Audio-visual media

References to audio-visual media must include the following elements: name and function of the primary contributors (e.g., producer, director), date, title, the medium in brackets, location or place of production, and name of the distributor. If the medium is indicated as part of the retrieval ID, brackets are not needed.

a. Videocassette/DVD

Achbar, M. (Director/Producer), Abbott, J. (Director), Bakan, J. (Writer), & Simpson, B. (Producer) (2004). *The corporation* [DVD]. Canada: Big Picture Media Corporation.

b. Audio recording

Nhat Hanh, T. (Speaker). (1998). *Mindful living: a collection of teachings on love, mindfulness, and meditation* [Cassette Recording]. Boulder, CO: Sounds True Audio.

c. Motion picture

Gilbert, B. (Producer), & Higgins, C. (Screenwriter/Director). (1980). *Nine to five* [Motion Picture]. United States: Twentieth Century Fox.

d. Television broadcast

Anderson, R., & Morgan, C. (Producers). (2008, June 20). *60 Minutes* [Television broadcast]. Washington, DC: CBS News.

e. Television show from a series

Whedon, J. (Director/Writer). (1999, December 14). Hush [Television series episode]. In Whedon, J., Berman, G., Gallin, S., Kuzui, F., & Kuzui, K. (Executive Producers), *Buffy the Vampire Slayer*. Burbank, CA: Warner Bros.

Music recording

Jackson, M. (1982). Beat it. On *Thriller* [CD]. New York, NY: Sony Music.

5. Undated Web site content, blogs, and data

For content that does not easily fit into categories such as journal papers, books, and reports, keep in mind the goal of a citation is to give the reader a clear path to the source material. For electronic and online materials, include stable URL or database name. Include the author, title, and date published when available. For undated materials, include the date the resource was accessed.

a. Blog entry

Arrington, M. (2008, August 5). The viral video guy gets \$1 million in funding. Message posted to <http://www.techcrunch.com>

b. Professional Web site

National Renewable Energy Laboratory. (2008). *Biofuels*. Retrieved May 6, 2008, from http://www.nrel.gov/learning/re_biofuels.html

c. Data set from a database

Bloomberg L.P. (2008). *Return on capital for Hewitt Packard 12/31/90 to 09/30/08*. Retrieved Dec. 3, 2008, from Bloomberg database.

Central Statistics Office of the Republic of Botswana. (2008). *Gross domestic product per capita 06/01/1994 to 06/01/2008* [statistics]. Available from CEIC Data database.

6. Entire Web site

When citing an entire Web site (and not a specific document on that site), no Reference List entry is required if the address for the site is cited in the text of your paper.

Witchcraft In Europe and America is a site that presents the full text of many essential works in the literature of witchcraft and demonology (<http://www.witchcraft.psmmedia.com/>).

For more detailed information on APA citation style such as information on articles in press, journal special issues and supplements, translations, et cetera, see the [Publication Manual of the American Psychological Association](#) and the [APA Style Guide to Electronic References](#).

Other citation guides and useful Web sites:

American Psychological Association's [Web site](#)

Purdue University Online Writing Lab's [APA Formatting and Style Guide](#)

Validity and reliability of information on the Internet:

Authority

- ◆ Is the author of the site easily identifiable?
- ◆ Is the site developed by an individual or a group (an institution, for example)?
- ◆ What are the author's or group's credentials (professional qualifications, background, credentials, or institutional affiliation, for example)?
 - ◇ Groups may have more long-term interest, in addition to financial backing, to give stability to the site. An email address to "info" or "webmaster" may indicate a group or committee.
 - ◇ Domain names, such as *.edu* (education) or *.gov* (government) can indicate authorship and the entity who published the content.
 - ◇ Is there evidence of possible bias, based on the organization's affiliation?
 - ◇ A commercial site may be promoting products or business interests, even if only in a subtle way (such as the presence of a company name).

Timeliness

- ◆ Can you find the date of publication or latest update of the page or article?
- ◆ If a date is not clearly identifiable (at the beginning or end of the page) can it be located by other means?
 - ◇ In the View tab, look at "document info" for a possible date.
 - ◇ In the address bar, from right to left, delete characters in the URL up to the first slash mark. This will get you to the home page, which is usually dated.
- ◆ Are there indicators for new information?

Accuracy

- ◆ Is the information reliable and error free?
- ◆ Can the information presented on the website be verified? Information may be verified in the following ways:
 - ◇ Other Internet sites
 - ◇ Other sites linking to this site for content
 - ◇ Texts (textbooks, biographies, magazines, or non-fiction books, among other texts)
 - ◇ Personal experiences, background knowledge

[cont'd]

Content

- ◆ Can the content be found at several other reliable resources?
- ◆ Is the content consistent with what is already known on the topic?
- ◆ If the information presented is ground-breaking, is there any proof to the assertions? Or do they describe how they got to this information (for example, research methodology or consulting other sources)?

Bias

- ◆ Is the content free of bias?
- ◆ Is the website designed to sway opinion?
- ◆ Does the author or publisher have a particular viewpoint that they seek to endorse?
- ◆ Does the website present accurate descriptions of alternate viewpoints?
- ◆ Are there advertisements on the webpages?
- ◆ Who sponsors the website?
- ◆ Are political views posted on the webpages?

Sources

- ◆ Does the author/sponsor state where the information was obtained?
- ◆ Is a bibliography or list of sources included on the website?
- ◆ Are the sources verifiable and reliable?

download.microsoft.com/.../A/6/.../Validity_Student_handout1.doc