

Cyber Space Learning

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Future historians, looking back at the developments of the late 20th century, will refer to our era as the "Information Age." In order to prepare our students for the developments yet to come in the 21st century, we must seize every opportunity to employ new techniques for the exchange of knowledge. The World Wide Web provides precisely this opportunity. Teachers must become evangelists spreading the word of the rich global community blossoming on the Internet.

Yes, there are those who speak of the "evils" of the Web. Only the naive would deny that offensive material does exist on the Internet. In the past there have also been those who have led crusades to ban great works of literature, and to remove televisions and videos from the path of our children. Yet somehow, we have managed to use these devices to the benefit of education because dedicated teachers have shown the way. With support from the education community we can establish a safe learning environment on the Internet for our students.

Teachers must understand that the Internet is a powerful research tool and like other educational tools students should be taught its proper use. They need to learn to discriminate between "good" and "bad" Internet resources. If not informed, students may assume that everything they read is correct. Every site should be evaluated using the following questions:

- Is the information accurate and up-to-date?
- Are the links to other sites maintained?
- Is the information biased?
- Was the site created by a person knowledgeable about the subject matter?
- Is the site affiliated with an organization?
- Can you confirm the truth of the information given?

In a recent class discussion the question was asked, "When does the 21st century begin." Students debated the issue, eventually narrowing the field to January 1, 2000 or January 1, 2001. Two students journeyed to the library to find the answer. They returned with a book titled *Major Events of the 20th Century*. The book began with the year 1900, their conclusion was that the 20th century began in 1900 therefore the 21st century must begin in 2000. A more directed search led to the World Book Encyclopedia and the correct information that the turn of the century will be January 1, 2001. An internet search gave similar results. At one site,

JUDY ANN BROWN'S TOP-12 LIST OF HOT WEB SITES

1. For those impossible-to-answer questions that students often pose there is Ask Dr. Math. Students/teachers can submit questions for the doctor. Please read the FAQ list before submitting your question.
<<http://forum.swarthmore.edu/dr.math/drmath.html>>
2. AIMS Puzzle of the Month Hotlist is a site you will want to visit the first week of each month. There you will find ready-to-use worksheets with a new puzzle each month.
<<http://204.161.33.100/Puzzle/PuzzleList.html>>
3. Chaos in the Classroom: Robert L. Devaney, Department of Mathematics Boston University.
<<http://math.bu.edu/DYSYS/chaos-game/chaos-game.html>>
4. Eisenhower National Clearinghouse for Math and Science Teachers at Ohio State University. The ENC Catalog of Curriculum Resources records materials which are designed to assist teachers in selecting appropriate and high quality items for classroom use. <<http://www.enc.org>>
5. To add a touch of the History of Mathematics to your daily lessons visit Mathematical MacTutor. There you can find the name of the mathematician of the day or do a search for a specific topic in mathematics.
<http://www-groups.dcs.st-and.ac.uk:80/~history/Mathematical_MacTutor.html>
6. PCTM Puzzle of the Week Page:
<<http://dimacs.rutgers.edu:80/~judyann/POW/puzofwk.html>>
7. MetaCrawler Search Engine will help you to find almost anything on the web:
<<http://metacrawler.cs.washington.edu>>
8. Learn the rules of the Net:
<<http://www.fau.edu/rinaldi/netiquette.html>>
9. Learn the rules of Netiquette
<<http://www.dse.vic.gov.au/loti/netiquet.htm>>
10. NCTM Standards: The National Council of Teachers of Mathematics standards for math education.
<<http://www.enc.org/online/NCTM/280dtoc1.html>>
11. The Classroom Connect's home page features links to educational resources:
<<http://www.wentworth.com/classroom>>
12. Web page full of software for Mac and IBM
<<http://www.netaxs.com/people/dmorgen/stoney.html>>

Good luck and Happy Surfing!