

Math Education Research Guide

Finding Journal Articles

To locate journal articles on a wide variety of topics in the area of math education, there are several online databases available. Some databases offer full-text articles, others just the bibliographic information, including citation and abstract.

Access the Library databases page through the myLibrary tab in myLesley. When you get to the page listing the library databases, under the first section titled **PLACES TO START** are the following three databases that offer math education journals with full-text articles:

- **Academic Search Premier**
- **Wilson OmniFile**
- **Expanded Academic ASAP**

Another database to investigate under the **EDUCATION** section of the database list which also offers math education journals is

- **Proquest Education Journals**

Web Guides and Resources

Cornell Theory Center Math and Science Gateway

http://www.tc.cornell.edu/Services/Education/Gateways/Math_and_Science/mathematics.htm

An easy starting point for locating math resources on the web, tailored to students in grades 9-12.

Math Forum

<http://mathforum.org/>

Swarthmore College has developed this forum to build a community of students and teachers of geometry at all levels. One may find lesson plans, read articles, contribute ideas, search or browse WWW resources, or ask questions of Dr. Math

Mathematics by Classifications

<http://www.ams.org/mathweb/mi-mathbyclass.html>

This Table of Contents lists electronic journals, preprints, Web sites and pages, databases and other math material, organized by the 1991 Math Subject Classification.

Educator's Reference Desk

<http://www.eduref.org/index.shtml>

From the Information Institute of Syracuse, this a resource that offers lesson plans, links to online education information, and question archives.

Yahoo! Directory Search – Mathematics

<http://dir.yahoo.com/Science/Mathematics/>

Gateway to over 48 mathematics sites ranging from interactive mathematical encyclopedias, to math problem solvers, to math lesson plans, to math tutorials and math homework help.

MathWorld

<http://mathworld.wolfram.com>

Comprehensive mathematical resource for students, educators, math enthusiasts and researchers. An online encyclopedia of mathematics.

AAA Math

<http://www.aaamath.com/>

Includes hundreds of pages of basic math skills, with interactive practice on every page. Explanations of math topics, math problems and challenge games on a variety of topics for grade school levels K-8

A+ Math

<http://www.aplusmath.com/>

For students in elementary and middle school, this is a homework helper, and also has flash cards and games. Students enter problem and find out solution.

Classroom Applications

- **Ask Dr. Math**
<http://mathforum.org/dr.math/>

Math students at Swarthmore College, the "Swat Team," invite e-mail math questions from students K-12, college and beyond. They post a problem of the week and project of the month.

- **Calculus & Mathematica Home Page**
<http://www-cm.math.uiuc.edu>

University of Illinois at Urbana-Champaign and Ohio State University have created an interactive online calculus course, supported by new calculus rationale and approaches. Included are the syllabus, tutorials, and problems.

- **MathMagic!**
<http://mathforum.org/mathmagic/index.html>

This site invites teams of math students at all levels K-12 to participate in math challenges via e-mail. Each team is paired with another team to collaborate on solutions. MathMagic is offered by Alan Hodson, a middle school teacher in El Paso, Texas.

- **National Center for Supercomputing Applications**
<http://www.ncsa.uiuc.edu/>

The NCSA at the University of Illinois has created this site to build bridges between scientists, students, teachers and the public. Interactive computational real-life math units are included in the Resource for Science Education.

- **National Council of Teachers of Mathematics Standards 2000**
<http://www.nctm.org/standards/>

Introducing NCTM's Principles and Standards for School Mathematics, just revised and announced in April, 2000. Read or download the electronic version.

Data Sets

- **Bureau of Labor Statistics Data**
<http://http://www.bls.gov/data/>

The BLS collects, processes, analyzes and disseminates sensitive economic and statistical data. The Web page offers data, research reports, and economic information.

- **CHANCE Database**
<http://www.dartmouth.edu/%7Echance/index.html>

The CHANCE Database provides materials for a case study quantitative literacy course developed by Middlebury, Grinnell, Spelman, and Dartmouth Colleges, University of California San Diego and University of Minnesota. It also supports more standard introductory statistics.

- **National Climate Data Center**
<http://www.ncdc.noaa.gov/oa/ncdc.html>

NCDC provides data sets on global and national climate and weather for students and researchers.

- **Telescope Data Center**
<http://tdc-www.harvard.edu/TDC.html>

The Smithsonian Astrophysical Observatory and Harvard University offer data and astrological images, with special viewing software.

- **U.S. Census Bureau**
<http://www.census.gov/>

The Census Bureau gathers data on all aspects of American life, including population, housing, and employment.

Math Hot Spots

- **Graphics for the Calculus Classroom**
<http://www.math.psu.edu/dna/graphics.html>

Graphics developed to support First Year Calculus in the McAllister Technology Classroom at Penn State. For more advanced math students, this is a fun overview to topics such as “how the ball bounces”, “differentials and differences” and geometric calculations and formulas. Many of the images are animated.

- **Faces of Science: African Americans in the Sciences and Mathematics**
<https://webfiles.uci.edu/mcbrown/display/faces.html>

Profiles of African American women and men who have contributed to the advancement of science, engineering and mathematics. Entries include a photograph, brief biography, list of selected publications, awards and memberships, and contact information, where available.