

AFTER-SCHOOL SCIENCE PLUS

http://edequity.org/afterschool_materials.php

Barbara Sprung

Educational Equity Center at the Academy for Educational Development

Two **manuals** available on this Web site cover everything educators need to know to start community-based after-school science programs: a planning guide offers information on program development and staff training, and an activity guide leads instructors through inquiry-based lessons designed to improve gender representation in the sciences. The site also offers several other related publications for educators and parents. Visit the Web site to learn more.

96-32241

Grade level: elementary school, middle school, professional development



FIRST (FEMALE INVOLVEMENT IN REAL SCIENCE TECHNOLOGY)

<http://www.chabotspace.org/visit/programs/first.asp>

Etta Heber

Chabot Space and Science Center

Becoming a scientist or an engineer is not just a dream for girls who participate in real science experiences. FIRST provides informal settings for girls to engage in hands-on science at elementary and middle schools in the Oakland Unified School District. Students and their teachers, administrators, and caregivers explore critical environmental issues that affect their lives on a daily basis. Download the form to order a **resource guide** for parents and teachers to help encourage girls in science.

95-55807

Grade level: elementary school, middle school, professional development

NATIONAL SCIENCE PARTNERSHIP FOR GIRL SCOUTS AND SCIENCE MUSEUMS



<http://www.fi.edu/tfi/programs/nsp.html>

Dale McCreedy

Franklin Institute Science Center

The National Science Partnership's Hands-On Science Kits contain a **guidebook** and materials for five to seven weeks of science activities for groups of 15 Brownie or Junior Girl Scouts. Two kits have supporting videos starring female scientists. Originally designed to help Girl Scouts meet their badge requirements, these activities can be easily integrated into camp and after-school programs.

04-36249

Grade level: elementary, middle, high school

SPORT SCIENCE: USING SPORTS AS A VEHICLE FOR SCIENCE LEARNING



http://www.hiceducation.org/Edu_Proceedings/Penny%20L.%20Hamrich2.pdf

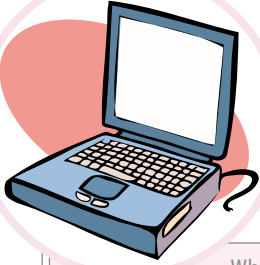
Penny Hammrich

Queens College, CUNY (formerly of Temple University)

Balance. Force. Speed. Trajectory. Girls in six Philadelphia middle schools investigate these science concepts while engaging in basketball, fencing, soccer, golf, and other sports. As explained in this comprehensive **report**, Sports Science uses sports as a vehicle to teach a standards-based science and math curriculum. Like Temple University's original Sisters in Science program, Sports Science offers after-school and Saturday programs to accommodate girls' learning styles.

00-02073

Grade level: middle school, undergraduate



LEARNING ONLINE

http://www2.edc.org/GDI/publications_SR/equity6_04_FULLBOOK.pdf

Katherine Hanson

Education Development Center, Inc.

What constitutes gender balance in e-learning? Through an online professional development course for middle school math and science teachers, "Engaging Middle School Girls in Math and Science," researchers investigated the effectiveness of training designed to improve gender representation. The final **report** provides practical guidelines and vital data for improving gender balance in e-learning course-design and implementation.

00-02126

Grade level: middle school, professional development



ATHENA PROJECT

http://www.alphacenter.ucr.edu/Brochures/VolumeI_Issue1.pdf

Pamela Clute

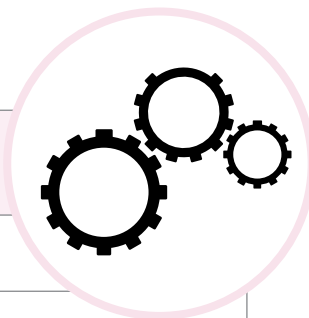
University of California–Riverside

On Athena Saturday, middle school girls gather with female college students to share stories about their "sheroes," or women heroes. Named for the Greek goddess of wisdom and victory, the Athena project links young girls and their teachers with female science and mathematics majors and faculty. Read about the tutoring, teacher-training, and mentoring services to help women excel in science and mathematics in this **newsletter**.

96-19060

Grade level: middle school, professional development

UNITED CONNECTICUT FOR WOMEN IN SCIENCE, ENGINEERING, AND MATHEMATICS



<http://www.easternct.edu/personal/faculty/cidc/ucwsme.html>
<http://www.cpep.org/index.html>

Carmen Cid

Connecticut Pre-Engineering Program, Inc.

Connecticut colleges, universities, school districts, professional organizations, and businesses all work together to encourage girls and women in science, engineering, and mathematics. The project uses recruitment and retention strategies to improve participation and achievement; a clearinghouse of research on girls and women in these fields; public awareness activities on issues of gender representation; programs to enhance self-esteem and learning for urban middle and high school girls and community college women; and classroom teaching approaches to help K–12 teachers address gender issues. Available resources include downloadable **tip sheets** for parents and teachers.

94-50026

Grade level: middle school, high school, professional development

BEYOND THE BEAKERS: SMART ADVICE ON ENTERING GRADUATE PROGRAMS IN THE SCIENCES AND ENGINEERING



<http://www.bcm.edu/smart/?PMID=2993>

Gayle R. Slaughter

Baylor College of Medicine

A comprehensive **guidebook** for undergraduate women planning to pursue STEM careers. Includes advice on acquiring mentors and gaining the most from research experiences, as well as female-friendly, ethnic-inclusive logic problems for GRE preparation.

99-06394

00-80662

Grade level: undergraduate



RETENTION OF WOMEN GRADUATE STUDENTS AND EARLY CAREER ACADEMICS IN SCIENCE AND ENGINEERING

<http://iupjournals.org>

Jill Bystydzienski

Iowa State University

Significant barriers still exist for women faculty and underrepresented groups in science and engineering fields. At this national conference, graduate students, faculty, and administrators in women's studies and STEM fields from more than 55 universities and colleges exchanged information and collaborated to encourage gender-balanced sciences. Read the **conference papers** on the status of women in STEM fields past and present in the *NWSA Journal, Special Issue: ReGendering Science Fields*.

00-94556

Grade level: undergraduate, postgraduate, professional development



REMOVING BARRIERS: WOMEN IN ACADEMIC SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS

<http://www.nwsaj.engl.iastate.edu>

http://www.iupress.indiana.edu/catalog/product_info.php?products_id=22614

Jill Bystydzienski and Sharon R. Bird (eds.)

Iowa State University

This book complements the *NWSA Journal, Special Issue: ReGendering Science Fields* (vol. 16.1), granting even wider access to ideas shared and generated at the conference on the Retention of Women Graduate Students and Early Career Academics in Science and Engineering. Includes more **conference papers** on the status of women in STEM fields.

00-94556

Grade level: undergraduate, postgraduate, professional development

ACHIEVING GENDER EQUITY IN SCIENCE CLASSROOMS: A GUIDE FOR FACULTY

http://www.brown.edu/Administration/Dean_of_the_College/homepginfo/equity/Equity_handbook.html

Sheila E. Blumstein

Brown University

Supportive classroom environments can help to retain and attract more women science, math, and engineering majors. This **handbook** is developed as part of Brown's Women in Science and Engineering (WISE) program. Based on sociological, physiological, and educational research on gender differences in science learning, it presents techniques to foster gender diversity and to make classrooms more welcoming for women students.

94-53676

Grade level: undergraduate, professional development



THE PREPARATION OF GENDER-SENSITIVE SCIENCE TEACHERS IN THE UNIVERSITY OF DELAWARE'S SECONDARY SCIENCE EDUCATION PROGRAM

<http://www.nsta.org/main/pdfs/NSTStandards2003.pdf>

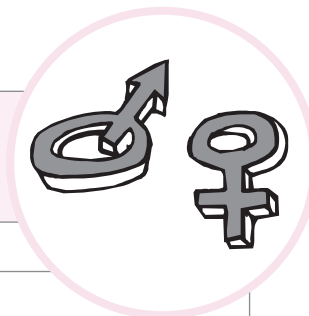
Kathryn Scantlebury

University of Delaware

Issued by the National Science Teachers Association and recently revised, the **resource guide** "Standards for Science Teacher Preparation" provides a model for preservice high school teacher education that emphasizes gender-sensitive teaching practices. This document discusses constructivist approaches to classroom instruction, the importance of relating science to everyday life, and the need for teachers to design lessons with student diversity in mind.

94-50022

Grade level: postgraduate





NORTHWEST GIRLS COLLABORATIVE PROJECT REPLICATION GUIDE

<http://www.pugetsoundcenter.org/ngcp/nwgcp/>

Karen Peterson

Puget Sound Center for Teaching,
Learning, and Technology

This model of regional collaboration has brought hundreds of organizations together to exchange ideas, information, and resources on girls' STEM education. The **replication guide** provides tips on everything an educator needs to set up a network in his or her community: recruitment, the effective use of technology, running conferences, and much more.

02-17212

Grade level: professional development

Science, Gender, and Afterschool A RESEARCH-ACTION AGENDA

SCIENCE, GENDER, AND AFTERSCHOOL: A RESEARCH-ACTION AGENDA

<http://www.afterschool.org/sga>

Merle Froschl

Educational Equity Center at the Academy for Educational Development

Girls become more engaged in STEM in the informal, collaborative atmosphere of after-school programs. This **report** from the 2002 Science, Gender, and Afterschool Conference addresses four key issues in the development of such programs: recruitment, content and strategy, professional development, and connecting school and after-school.

04-10552

Grade level: professional development

TECH SAVVY: EDUCATING GIRLS IN THE NEW COMPUTER AGE



http://www.aauw.org/research/girls_education/techsavvy.cfm

Nancy Lark

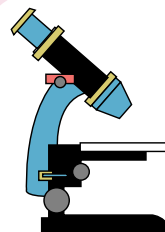
American Association of University Women (AAUW) Educational Foundation

Girls tend to be less engaged by technology than boys. But will getting more girls to sign up for computer science classes solve this problem? If not, how can educators get girls to develop a sustained interest in computers and computer technology? This **report**, prepared in 2000 by the AAUW Educational Foundation's Commission on Technology, Gender, and Teacher Education, presents timely discussions of these questions and others.

03-32841

Grade level: professional development

UNDER THE MICROSCOPE: A DECADE OF GENDER EQUITY PROJECTS IN THE SCIENCES



<http://www.aauw.org/research/microscope.cfm>
<http://www.aauw.org/k%2D12/>

Nancy Lark

American Association of University Women (AAUW) Educational Foundation

Over the last decade, the AAUW Educational Foundation and the National Science Foundation have invested close to \$100 million in more than 400 projects aimed at getting girls involved in the sciences and math. But what types of projects, specifically, have been funded? And have certain areas been overlooked? These questions and many others are explored in this influential **report**.

03-32841

Grade level: professional development



SISTERS IN SCIENCE NEWSLETTER

<http://qcpages.qc.cuny.edu/Education/new/sisnewsletter.html>

Penny Hammrich

Queens College, CUNY
(formerly of Temple University)

By teachers and for teachers, this quarterly **newsletter** talks about the practical challenges educators face in bringing gender fairness to the classroom. Read about Sisters in Science efforts to initiate urban girls into STEM, and use sample classroom activities to design gender-inclusive lesson plans.

04-36221

Grade level: professional development



GENDER DIFFERENCES IN THE PERCEPTION AND USE OF AN INFORMAL SCIENCE LEARNING WEB SITE: FINAL REPORT TO THE NSF

http://capsi.caltech.edu/research/documents/GenderDifferneceAschbacher_000.pdf¹

Pamela Aschbacher

California Institute of Technology

Researchers studied Whyville.net to determine which factors led to the site's documented success at raising girls' interest in technology. This 44-page final **report** lays out findings from their comprehensive survey of site users' motives and behaviors. An essential resource for developers of girls' online educational resources.

00-86338

Grade level: professional development

¹ This URL is correct despite the misspelling.

See also:

Introduction to 3-D Spatial Visualization: An Active Approach (CD-ROMs)

Tech Savvy Girls Video and Resource Guide (DVDs/Videos and Games)

United Connecticut for Women in Science, Engineering, and Mathematics (Web sites)

After-school and Summer Science Camps for Young Women (Web sites)

Midwest Rural-Urban Girls Collaborative (Web sites)

Tech Team: Project-Based Education for Middle School Girls (Web sites)

Engineering, Science, and Math Increase Job Aspirations (ES MIJA) (Web sites)

Connecting Women across the Computer Science Pipeline: From High School through the Ph.D. (Web sites)

Summer Medical and Research Training Program (Web sites)

CIC WISE Initiative (Web sites)

STEMTeams.org (Web sites)

Science, Gender and Afterschool Community of Practice (Web sites)

Summer Medical and Research Training Program (Web sites)