

National Science Foundation

Directorate for Education and Human Resources
Division of Human Resource Development



Research on Gender in Science and Engineering Program (GSE)

GSE-Supported Resources for K-12 Educators



Photos: Karen Peterson, National Girls Collaborative Project



National Girls Collaborative Project (NGCP)
(HRD-0631789) www.ngcproject.org

The vision of the NGCP is to bring together organizations throughout the United States that are committed to informing and encouraging girls to pursue careers in science, technology, engineering, and mathematics (STEM). The online Program Directory lists programs and resources that help organizations and individuals network, collaborate, and share STEM-related projects and promising practices for girls.

STEM Stories, (HRD-0734004)

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www.stemstories.org

Free online collection of multimedia resources with images, audio, interactive clips, video, web links, and other materials aimed at girls in grades 4-8. The web site highlights careers in STEM along with personal stories and interviews from STEM pioneers and professionals. New clips are added each week.

Girls in Science–

A Framework for Action

(HRD-9355871), (HRD-9813926)

Girls in Science (NSTA Press: ISBN: 978-1-93353-104-5) addresses the critical issue of gender equity in science classrooms, while also offering a philosophical and practical primer for teaching science to all students. This book is based on the work of the Triad program, a community of teachers, scientists, and professional evaluators in the San Francisco area. *Girls in Science* documents the Triad team's struggles to increase the effectiveness of their efforts and offers practical suggestions for getting started with gender-equitable science teaching.

National Alliance for Partnerships in Equity (NAPE) (HRD-0734056)

www.stemequitypipeline.org

The STEM Equity Pipeline Project offers professional development and teacher training on strategies to expand options for women and girls in STEM. The site consists of webinars and online courses to create gender equitable classrooms. A collection of resources for STEM educators includes training modules, PowerPoints, presentation materials, and activities for high school and community college students with a focus to engage students to learn more about women scientists and careers in STEM fields, such as physics, space, engineering, math, and computer science.

The American Association of University Women (AAUW)

(HRD-0832982) www.aauw.org

AAUW produced the report, *Why So Few? Women in Science, Technology, Engineering, and Mathematics* to highlight key research findings on topics such as gender differences in spatial skills, stereotype threat, girls' interest in science and engineering, growth vs. fixed mindset, and college recruitment and retention. The book also explores strategies to address gender inequity in STEM.

WEPAN Knowledge Center,

(HRD-1016711); (HRD-0734100)

www.wepanknowledgecenter.org is a searchable database of resources that inform research, practice, and institutional change to advance the success of women in engineering and STEM fields. The site also includes a presenter's guide, newsletters, and activities for K-12 educators who want to encourage girls in grades 3-12 to explore engineering.

Society of Women Engineers (SWE),

(HRD-0937306) <http://aspire.swe.org>

SWE K-12 educational outreach is designed to encourage girls and women to "aspire, advance, and achieve" careers in engineering. The website provides information for students, parents, counselors, educators, and engineers on scholarships, engineering careers, local events, and inspiring profiles of women engineers. "Engineer Your Life" and "Engineer Girl" also address what classes students need to take to become an engineer, and includes a video clip, "Why Engineering?"

Techbridge (HRD-0733563),

With lessons learned from working with role models during classroom visits and field trips, Techbridge offers training and the resource, "Get Involved. Make a Difference: Guide for Classroom Visits and Field Trips for K-12 students" to engage girls in technology, engineering, and science. Techbridge, a program launched by Chabot Space & Science Center in 2000, provides hands-on activities, career exploration, and academic and career guidance. www.techbridgegirls.org

SciGirls (Twins City Public Television)

(HRD-1011045) <http://pbskids.go.org/scigirls>

This project builds on girl-focused resources from the award-winning PBS Kids Science Series Dragonfly TV and the SciGirls TV and multimedia project. Educational outreach materials are available to after school program leaders, informal science educators, parents, and professionals that influence girls in grades 3-8. The project stresses current research and effective strategies to engage girls in STEM activities. In addition *SciGirls en la Familia* provides resources in Spanish and English for community educators to share best practices with Hispanic girls and their families and inform them of opportunities in STEM education.

National Center for Women in Information Technology (NCWIT),

(HRD-0533580)

www.ncwit.org/resources.summary.html
NCWIT is a coalition of over 200 corporations, academic institutions, government agencies, and non-profits working to increase women's participation in information technology by inspiring girls to pursue careers in this field. Free resources and information are available to formal and informal educators to help provide strategies, tools, and practices to attract more girls and underrepresented groups to computing and information technology. NCWIT resources include a multimedia digital library of K-12 resources.



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