



Resources to Encourage Girls in STEM

1. Looking for an icebreaker or activity to lead at your next event? Check out **Techbridge** favorites that will inspire and engage girls in grades 5-12.
<http://www.techbridgegirls.org/RoleModels/Resources.aspx>
2. **Society of Women Engineers K-12 Programs** provides activities and resources for outreach.
<http://aspire.swe.org/>
3. **Science Buddies** provides information on a wide assortment of science activities including making a marble roller coaster.
http://www.sciencebuddies.org/science-fair-projects/project_ideas/Phys_p036.shtml
4. **Agilent After School Kits** include hands-on experiments making electronic-circuit games and balloon-powered cars that come in programs-in-a-box.
http://www.agilent.com/comm_relation/comty_actn_aas.shtml
5. **Design and Discovery** engages kids in hands-on design activities that promote problem-solving in engineering. The curriculum is offered by Intel Innovation in Education.
<http://educate.intel.com/en/DesignDiscovery/>
6. **Design Squad** offers design challenges that introduce the engineering design process in ways that will excite youth about engineering. <http://pbskids.org/designsquad/>
7. **Engineer Your Life** is a website about engineering for high school girls that includes inspiring role models. **Engineer Girl** is a site that has been developed for middle school girls.
<http://www.EngineerYourLife.org> and <http://www.engineergirl.org>
8. **SciGirls** offers fun hands-on project to get girls interested in engineering, math, science, and the environment. <http://pbskids.org/scigirls/>
9. **K'NEX kits** give kids a chance to create their own inventions, bridges, or roller coasters. They are a great way to build confidence in engineering. www.knex.com
10. **Snap Circuits** are a simple and safe introduction to how circuits work. This kit includes everything you need: speakers, snap wires, LEDs, lamp sockets, and motors. Snap Circuit kits are available from <http://www.elenco.com>.
11. Reverse engineering (also known as taking stuff apart) is a hit with kids. You can get hairdryers or household appliances at garage sales or thrift stores. Visit **How Stuff Works** to research how the appliance works. <http://www.howstuffworks.com>

www.techbridgegirls.org

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12. **Making the Connection** introduces students in grades 3-12 to engineering through activities like designing a bicycle helmet and building a roller coaster. The project is supported by the **Women in Engineering Programs and Advocate Network and Lucent Technologies**.
<http://www.wepan.org/displaycommon.cfm?an=1&subarticlenbr=38>
13. **NASA** encourages students to explore the science of space through age-specific activities and opportunities, including games and videos in the NASA Kids' Club.
<http://www.nasa.gov/audience/forstudents>
14. **National Center for Women & Information Technology (NCWIT)** offers a wealth of resources to promote girls' engagement in computer science and effective outreach.
http://www.ncwit.org/resources?field_audiences_tid%5B%5D=1
15. Developed by the MIT Media Lab, **Scratch** teaches programming and allows kids to design their own stories, animations, music, and art. Scratch software is available free online and can be downloaded at <http://scratch.mit.edu>.
16. **National Engineers Week** provides tested activities to introduce in the classroom and a toolkit with lots of helpful resources to plan and host a visit. <http://www.eweek.org/>
17. **Zoom into Engineering** offers fun hands-on projects like Gumdrop Dome, Egg Bungee Jump, and Keep a Cube. <http://www.pbs.org/parents/zoom/engineering>
18. **Zoom Science** provides activities that introduce chemistry and the life sciences to kids.
<http://pbskids.org/zoom/activities/sci/>
19. Discover and explore fun activities to introduce kids to environmental issues through the **National Institute for Environmental Health Sciences kid pages**. <http://kids.niehs.nih.gov/>
20. **CS Unplugged** is a collection of free activities that teach Computer Science through engaging games and puzzles that use cards, string, crayons, and lots of running around. <http://csunplugged.org/>
21. **The US Energy Information Administration's Energy Kids** gets kids buzzing with information on the basics of energy, tips for conserving energy use, and a fun and downloadable Energy Ant Activity Book. <http://www.eia.gov/kids>
22. **The National Science Foundation** features a collection of online classroom resources on topics ranging from Astronomy to Nanoscience. <http://www.nsf.gov/news/classroom/>
23. Find activities for K-12 students to develop interest in and be prepared for careers in STEM at NSF's **Innovative Technology Experiences for Students and Teachers (ITEST)** Resource Center. <http://itestlrc.edc.org/>
24. **Serving Up Science and Engineering (to girls especially)** highlights activities to inspire girls and minorities in science and engineering. <http://www.lulu.com/spotlight/sevo>