

Programs of the Chevron Center for STEM Education and Career Development

Student Programs:

SciTech Days—Serving 6,000+ middle and high school students and teachers annually, connect students to real world scientists and engineers from more than 40 companies and universities through a wide range of hands-on experiences.

Chain Reaction Contraption Contest—A high school competition involving teams from 30 schools engaged in an engineering task to develop a Rube Goldberg machine to solve a real world problem and present the solution to a team of judges for evaluation.

Future City Competition—Part of a national competition engaging 30-35 local middle school student teams in utilizing SIMCITY software to design and build a scale model of a city of the future.

National Engineers Week—Nearly 1,000 students explore activity booths by companies and organizations that demonstrate all types of engineering.

Pittsburgh Regional Science and Engineering Fair (PRSEF)—More than 1,000 students in grades 6-12 compete for over \$1 million in cash and scholarships.

ChemFest – National Chemistry Week—More than 2,000 students explore activity booths by companies and organizations on basic and applied chemistry.

High School Film Festival —Engaging 35-40 high school teams in film production about environmental and ecology topics.

BrainCake.org—An online community of girls ages 11-17 featuring programs, scholarships, virtual mentoring, blogs, homework help, research, activities, games, and more. Sections for mentors, teachers, and stakeholders interested in gender equity are included. The site has 12,500 members to date. Recipient of the 2009 Roy L. Shafer Leading Edge Award for Visitor Experience from the Association of Science and Technology Centers.

Click! - Urban Science Adventure—A six-day camp for middle school girls that uses a “Charlie’s Angels” meets reality TV setting for a science adventure. More than 280 girls have participated to date. Click! was one of only 10 winners out of 800 applications (from 32 countries) of the MacArthur Digital Media and Learning Competition to take this camp experience online.

Tour Your Future—A program created to introduce girls to a diverse range of careers in STEM with female STEM professionals at a research or industry site in the Pittsburgh region. More than 160 girls have participated to date.

Can*TEEN—A resource for teen girls that connects them to science in a way that captures their imagination and cultivates their long-term interest in science as a career. Available in middle school libraries and community libraries throughout the US, this kit includes CDs on STEM topics that feature profiles of female role models, activities, information on scholarships, and more.

Can*TEEN Online—Takes the CD kit to an online community for girls. Expected to be available to the public in 2012, Can*TEEN online will enable girls to navigate each STEM discipline and participate in activities with the help of virtual hosts, each with unique personalities and interests and with whom girls can identify on a personal level.

Science Connections—A program connecting local corporations and their science professionals with local classrooms to explore STEM careers. Groups of student representatives are selected from area schools, and are partnered with STEM professionals from local corporations. Students visit the corporations, and spend time exploring careers with their professional mentors. Then, the professional and the student team make a presentation at the school covering what they have learned.

High School Apprenticeship Programs—In partnership with the Allegheny Intermediate Unit, the Science Center provides STEM career exploration experiences to high school students in astronomy and robotics. The Apprenticeship Program brings students together to work with a master instructor in areas ordinarily available only to those pursuing specialized professional instruction at the college level. The program consists of half-day or daylong experiences over a six- or seven-month period during the school year. The program provides for hands-on, behind-the-scenes experiences and gives students the opportunities to make connections with organizations and people who can help them as they pursue their career choices.

Science on the Road (SOR)—Science on the Road targets students in grades K-8, combining high-energy, participatory assembly programs that feature videos of real scientists with inquiry-based activities that reinforce and expand the concepts presented in the assembly. Other aspects of the program include teacher training, pre- and post-visit activities, and in-depth classroom workshops. All programs anchor state academic standards and introduce students to career options in science and technology fields.

Grow Up Great with Science—Carnegie Science Center is currently working with 137 Head Start classrooms in Pittsburgh and Westmoreland County to provide teachers with the knowledge, confidence, and resources that they need to nurture a love and excitement for science in children 3-5 years old. The Science Center provides teacher professional development, classroom programs, family science nights, and curriculum with materials to all of the 137 classrooms.

Teacher / Care Giver Programs:

Teacher Professional Development—In partnership with ASSET, the Allegheny Intermediate Unit, and the Math & Science Collaborative, the Science Center provides pre-service and in-service teacher training related to best practices in both content and pedagogy.

The Girl Solution: A Gender Equity Toolkit—For educators, after-school programs, and girl-serving agencies, the toolkit provides techniques that engage and sustain girls' interest in science, math, engineering and technology. In partnership with the Pittsburgh Public Schools and Smart Futures, the Science Center was selected by the U.S. Department of Education as one of just 13 collaborative projects across the nation to receive federal "Women's Educational Equity Act Program" funding for a four-year initiative that helps high school girls gain higher proficiency in math and science.

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