

## The Girl Solution By Jennifer Stancil

Houston, we have a problem. We all know Sally Ride went to space but how many other women did too? 33. Of the top 10 job types hired last year, three focused on engineering. Yet, the percentage of women engineers in the US hovers well below 20%. And in Southwestern Pennsylvania by the end of this decade, 2.2 million jobs in science and technology need to be filled, but only 9% of women (compared to 26% of men) are pursuing degrees in these fields.

At the Girls, Math & Science Partnership, we are focused on changing these trends – dramatically. Our mission is to engage, educate, and embrace girls as architects of change. By focusing on girls 11 – 17 (a demographic that often falls in love with science and then out of love with it somewhere in middle school), we are hoping to build a network of girls that just might change the world with math and science.

BrainCake.org, the online sisterhood, launched in March of 2005. In only a year, it had more than two million hits. The site is built to encourage girls to express their opinion openly, learn what types of programs are out there to build their knowledge, and to feel a sense of belonging to a community of people their age. Girls on BrainCake.org don't hesitate to talk openly about "being the only \_\_\_\_\_" ...in science or math extracurricular activities and in general. They are already aware, at this age, that they are a rarity. Many express a deeply resolute love of science. And many, say they aren't so sure about the subject. In a recent poll, over a quarter of the girls, when asked about what kind of career they might choose (A chemist studying makeup? A mathematician solving environmental issues?), a quarter of them say "I'm not sure math and science are for me." So, this online environment appears to have great appeal to girls.

After conducting a great deal of research, the data on which BrainCake.org was built, includes the following tenets:

- Girls "get" that math and science is exciting. While they don't personally like it at the moment, they already understand that there is elegance, beauty, humanity, reward, and inspiration in math and science.
- Effective communication about math and science, therefore, is not a matter of "inventing" benefits for them, but rather reminding them of what they already know, and helping make these beliefs their passion.
- Girls are not motivated by what math and science can do for them, but rather what they can do with math and science.

At the Girls, Math and Science Partnership, we're taking a unique approach to how to speak to, engage and educate girls about math, science, engineering and technology. By beginning to combine pop culture, compassion, and real-world application, girls begin to get science as a holistic world view rather than a subject that they need to take in school. When girls discover that without them and their unique creativity - combined with math and science - our efforts to cure cancer and AIDS, diminish poverty, or engineer more

environmentally friendly buildings will be delayed, their self-professed feelings and motivations about science resurface. When they see science as the language of human progress, girls become part of the equation.

**About GMSP:** Born out of The Heinz Endowments 1998 study, *Promising Futures*, the Girls, Math & Science Partnership was created to address issues regarding girls, their participation in science, and the expansion of their influence on the regional workforce. In 1999, The Heinz Endowments began collaborating with the Alcoa Foundation and Family Communications, Inc. to incubate the partnership, establishing its commitment to scientific literacy projects that have long-term impact and ensure that women play a vital role in the region's future. Carnegie Science Center is now providing the administrative oversight for the partnership and acting as a steward of its continuing mission.

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