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4 ways to encourage girls in STEM

This week's "Ask the Mompreneur" features an interview with Sandy Marshall, founder of the nonprofit Project Scientist, which supports girls from ages 4 and up to achieve in the fields of science, technology, engineering, and math.

Ask the Mompreneur:

A variety of news outlets, such as The Atlantic, reported earlier this month on a longitudinal study out of the University of Edinburgh, which showed that math ability at age 7 predicted economic success as adults. So it seems more important than ever that we close the gender gap in science, technology, engineering, and math (STEM) careers.

What can parents do? And when should we start?

Sandy Marshall:

Knowledge in science, technology, engineering, and math can be the key to a successful future for a child, and we especially need to nurture these interests in young girls. National statistics reveal that there is a huge discrepancy in the number of women in STEM-related jobs. According to the U.S. Department of Commerce, although women fill close to half of all jobs in the U.S. economy, they hold less than 25 percent of STEM jobs. A few of the contributing factors to this difference include: a lack of female role models, gender stereotyping, and less family-friendly flexibility in the STEM fields. Through my work with The NASCAR Foundation, I served on the National STEM Funders Network and met with other national organizations that are working to tackle this issue. Although there are big changes that need to happen within the education system itself, parents can and will play a huge role in helping create a shift for our daughters. The following are a few tips for parents on how to help your daughter succeed in STEM. 1 - Tell her she is smart enough Encourage your daughter to pursue STEM by telling her you believe she is smart enough to have any career she wants. Challenge her to think about what she wants to be when she grows up. If either parent is in a STEM career, make sure you connect with your daughter so that she will want to model your success and think more about her various career opportunities. 2 - Introduce her to female STEM professionals Redefining what a scientist looks like is one of the most important things for helping nurture a girl's interest in STEM. The current landscape is somewhat isolating for girls and young women pursuing these fields because the overwhelming majority of teachers, classmates and professionals are male. Parents should be vigilant in finding and pointing out great female STEM role models. Be sure to take advantage of the role models that are close to home. Reach out to female professionals from your neighborhood, school or church. Studies show that introducing girls to "real" women is more effective in sparking their interest than relying on female role models on TV.

3 - Remind them of the rewards

Make sure your daughter knows about all the benefits and rewards of pursuing her interest in the sciences. As a result of the shortages of females in STEM-related fields, there are a lot of opportunities available to girls including college scholarships, internships, and high-paying jobs. Over the past 10 years, growth in STEM jobs was three times greater than non-STEM jobs and workers who hold STEM degrees enjoy higher earnings regardless of occupation. There are also nonmonetary rewards. A majority of girls who enter STEM majors have aspirations of using their knowledge to help people and to make a difference in the world. Expose your daughter to a variety of STEM careers and make a point of drawing a connection to how they could use their knowledge and education to help make an impact on society, e.g. developing an iPhone app that helps people with diabetes.

4 - Make it fun

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We used these principles when building our model for Project Scientist to ensure that we not only nurture a young girl's interest in STEM, but that we provide parents with the tools to continue that engagement at home. Project Scientist Academy is a four-week science summer camp for girls that provides an engaging and fun environment for those an aptitude, talent, and passion for STEM. We currently serve girls ages 4-12.

The camp runs from July 8 to August 2, and will be held in the brand new Rogers Science and Health Building at Queens University of Charlotte. The Academy brings together like-minded girls who enjoy exploring through the sciences and celebrating their accomplishments. The pipeline we have developed also includes Project Scientist Scholars, a program for middle-school girls that focuses on applying scientific concepts to address real world social problems; Project Scientist Coaches, a powerful community of inspirational and dedicated professional leaders and students in the STEM fields; and Project Scientist STEM Superstars, female scientists and aspiring young scientists who are making contributions to the field.

For parents outside of Charlotte, be sure to look for camps and programs in your area that encourage girls in STEM, including co-ed programs. Jennie Wong, Ph.D. is an executive coach, author of "Ask the Mompreneur," and founder of the social shopping startup CartCentric.com. Follow her on Twitter @DrJennieWong.

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