



## Encouraging Female Students to Pursue Careers in Science, Technology, Engineering, or Math (STEM)

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As a society, we learn about the world and advance our well-being through science and engineering. The United States may be known for its higher education; however, when compared to many other countries, we lack a strong focus on educating scientists and engineers. One significant reason we have fallen behind in this area is that we do not encourage female students to pursue career paths in science, technology, engineering, or math (STEM). This needs to change, because the lack of women in STEM will continue to plague our country until all students have adequate opportunities to explore math and science throughout elementary, middle, and high school. If we want to attract the best and brightest minds into the fields that will move us forward, we must look to all of the population. Following are a few strategies to help achieve this goal.

*Expose young girls to STEM.* As a country, we stand to gain a lot by exposing young girls to STEM fields and encouraging those who are interested to follow their hearts and minds. Simply focusing attention on one age group cannot cure all societal issues that influence career choices among females. Correcting the negative perceptions that girls develop at a young age can, however, lead them to embrace math and science instead of avoid them. Administrators and educators must strive to create environments in high school and college math and science programs that are inviting to females to help prevent the likelihood of their choosing a different direction.

*Encourage participation in special programs.* More workshops are sprouting up nowadays that encourage young girls to maintain their interest in STEM fields. In-school and out-of-school programs are gaining popularity. In order for that to continue, those of us in STEM fields have to support both local and national efforts to foster girls. Without understanding the opportunities that are available to students of math and science, young women may think they have made a mistake when facing the challenges of completing a STEM major. The good news is many current programs focus on increasing young girls' interest in those fields. Without them, there are potential long-term consequences, even for girls who select a STEM path in college.

*Support learning opportunities in the community.* Popular national clubs, such as the Girl Scouts, have started



to give added attention to introducing girls to STEM. There has been an improved focus on motivating young girls to explore typically male-dominated fields. This shows an important shift in thinking. When in a position to do so, offering summer internships provides a chance for girls and women to learn more about different possibilities in the STEM fields. Many firms also now offer job shadowing programs or career days.

*Serve as a mentor.* The value of mentorship is irreplaceable. Finding a mentor early on can do wonders for building confidence and translating it into career satisfaction. A mentor is not only someone who is willing to take the time to teach techniques and processes, but also someone who takes an interest in long-term advancement. One of the most important confidence builders can be found day-to-day on the job or in school in the form of a mentor. Teaming with a mentor is a career strategy that can bring huge benefits, especially to women in unbalanced work environments like engineering. The majority of successful women consistently credit their participation in some sort of mentorship for dramatically helping them reach their career goals.

*Take charge and educate.* We're an information-rich society, and every one of us has access to vast resources. Women can visit the websites of multiple professional organizations, such as the Society of Women Engineers, Women in Technology International, Association for Women in Mathematics, and Association of Women in Science, just to name a few. It is a tremendous opportunity to learn a great deal about the field, about what it's like to be a woman in a specific STEM profession, about career opportunities, and so on. While it might not be as enlightening as face-to-face communication with a professional in the field, it will certainly give women an informed starting point from which they can grow.

I challenge each of you to take part in the movement to help grow the STEM fields and the ranks of women in it by reaching out and finding the time to make change, empower, and enable young women in STEM.

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