

4 weeks ago by [Danielle Lindner](#)

Girls and STEM

Making it the Choice Not the Chore

Featured Money & Career

When we think about Science for many of us it sends a little bit of a chill down our spine. For some of us we are reminded of the high school Chemistry class we struggled through or the Physics class we were forced to take to fulfill that one last Science requirement to graduate from college.

For me, the sciences were always subjects to be feared and avoided at all costs. Although I had a few female Science teachers, they seemed to be muddling through the class themselves. Science wasn't their passion, or at least it didn't seem to be, and they were also the Homeroom, English, Math and Reading teacher.

When I moved into college, I didn't have any female Science teachers, or even Math teachers for that matter, and it didn't seem strange to me at all. In my mind, Science was for boys who were interested in dissecting things, figuring out very difficult equations and burning stuff that smelled terrible.



Photo Courtesy of Pace University

What I didn't realize, until I became a teacher myself, a preschool and then kindergarten teacher, was that the STEM subjects, Science, Technology, Engineering and Math, were amongst my favorites and had been all along. They were my favorite subjects when I was in school too, at least up until fourth grade, when we had to go to a class called Science, read from a boring textbook and learn vocabulary words that were as foreign to me as learning Mandarin.

What I found out when I had to teach these STEM subjects to my students was that STEM wasn't scary. STEM was mixing food coloring together and watching as new colors magically appeared, reading about how NASA using robots to explore Mars, working with a huge bin of Legos and straws to build a bridge as a class, or watching a four-year-old finally understand the idea of subtraction when they were using brightly colored bears as math manipulatives.

The STEM subjects were wonderfully exciting and all around us. We just weren't letting our kids, and especially our girls in on the secret. When I started my own preschool program in 2010, I decided that one of our core missions was going to be to demystify STEM and bring these subjects into the classroom from day one. We also were going to use the actual vocabulary words, especially in the Sciences. Chemistry is mixing food coloring together, Engineering is figuring out how to build that bridge with toothpicks and Legos. How do different colors affect the temperature of an object? Physics. It was especially important when doing anything Science related that we used the same words we would use in a high school classroom in our preschool room so that when our students were told it's time for Chemistry class, or Physics or a lesson in Ecology for that matter, they knew what they were in for and they had a positive attitude toward the Sciences.

After many years of watching caterpillars turn into butterflies, and carnations turn blue, red and purple as they drank from canisters of colored water, we are proud to say that we have graduated a lot of kids, both boys and girls, who love Science. We have had the opportunity to follow up with many of them in first, second and even third grade and they light up when you say the word experiment, Chemistry, or Physics. But that doesn't mean that we all must love Science or feel like we are budding Scientists with all the answers to excite our kids about STEM. Just helping our sons and daughters to have a few cool, fun experiences with Science is enough and it's easy to do right at home.

If you want to teach your little ones about chemistry, start with baking. Mixing, measuring, and observing how the ingredients come together is a lot of fun. Add heat and what do you get? An experiment, cookies and a delicious treat. Biology and ecology might seem like a stretch, but it's easy to bring home as well. Get a few flower pots and some seeds and observe as your indoor garden grows with your child, or purchase a small butterfly kit online and watch as caterpillars create cocoons, and bloom into beautiful butterflies. Environmental science your thing? Divide and conquer. Have your kids help you sort your recyclables. Set some boxes aside, decorate them together and talk about why we recycle and how it helps keep our earth healthy. There are so many ways to bring Science home and get your kids excited about it. By exposing our kids to opportunities at home and school, we are helping them to build a positive relationship with science that will be everlasting.



Photo Courtesy of University of San Diego

As the mother of two girls, I wanted them to have a positive outlook towards the Sciences and even consider making Science a career choice. One daughter has decided that she is most interested in a career in the Arts, which I am equally proud and happy about. The other, has chosen to pursue a career in medicine. Either way, both of my daughters enjoy Science and grew up feeling as if all the STEM subjects were fun, exciting and just as much for the boys as they were for the girls.