

Top Tips for Parents to Encourage Girls Into STEM

Throughout Barbie's 60-year history, Barbie has been committed to showing girls careers underrepresented to women. As we celebrate 50 years since men went to the moon – but still no women – Barbie shares Top tips for parents to highlight STEM for girls, created with Dr Elizabeth Kilbey, Consultant Clinical Psychologist working with young children and families, supporting them with childhood development.

ROLE MODELS

- Show girls positive female role models from an early age. By introducing them to stories and journeys of women from all walks of life, including those in STEM, they begin to see more opportunities for themselves. You can find examples of strong females on the Barbie website [here](#).
- If you have any female friends who work in STEM, ask if they will go into your child's school to talk about their job and workplace. It is important to have relatable STEM heroes and role models as much as well-known ones.
- Get your child excited about STEM by helping them understand how it has already enriched their lives with examples such as the internet, cures for diseases and travel. Make sure the examples you choose relate to their lives and hero women, such as Marie Curie, who worked in these areas. In recent years, amazing women have been highlighted through media helping parents and kids to learn about these women. Some of the ways you can learn together include reading books, watching films, researching online, take trips to museums or landmarks, or playing with toys to learn more about women who have changed the world.
- Be mindful of how you, your daughter and people around her may fall into typical stereotypes about girls or gender roles that don't reflect the full range of things she is capable of or can aspire to. It can be helpful to encourage your daughter to notice the language that she uses about herself and other girls, or the assumptions that she is making. Stereotypes are a 'silent oppressor' - they operate at an unconscious level so we begin to accept their messages without challenging them. Be the voice that helps your daughter be aware of the roles that she might be falling into and to break free from their limiting forces.
- Make sure play with your daughter reflects aspirations. When role playing, encourage children to include STEM themes or activities to make sure that having these aspirations is part of their mental world even from a young age. Because if we can dream it, we can achieve it.

LEARNING & ENGAGEMENT

- Helping girls be successful in STEM subjects at a young age helps to bust the myth that they are only for boys. Children will pursue subjects they feel they will be successful in, just as much as the ones they will enjoy. We tend to enjoy what we are good at, so early investment in STEM skills and knowledge is a win-win.
- Take an interest in your daughter's learning. Ask her what she did at school that day and if she doesn't mention STEM subjects ask about them so you can begin to show a specific interest in these subjects. Make this a focus of any discussions with your daughter's teacher and let the school know that you really value these subjects for your daughter.
- In the school holidays you could arrange for your daughter to visit different workplaces to see STEM careers in action, such as a science lab, robotics centre or engineering centre. Many companies also offer career days and job shadowing so you can see what a day is like in a particular career. This will help make STEM careers real for girls – if you can see it you can be it – and this is a way for girls to imagine themselves in STEM roles.
- If you have skills within STEM arrange to tutor not just your own children but others in the community to help spread the message to other girls. You can use your own experience and experiences to pass on your message of what STEM is and the positive impact it had on you.

SKILL DEVELOPMENT & KNOWLEDGE

- Science is a broad subject which is brilliant because it means there is something that will interest everyone. If you are travelling on a plane, you could have a discussion about the pilots who fly the plane or the engineers who make the plane safe for people. This also makes learning more fun and relatable to the real world.
- Expose your daughter to STEM related vocabulary at an early age. When your little one is in the bathtub, talk about "buoyancy" of the toys in the water. If you're playing with blocks, for example, use "cube" instead of "square." These words will begin to resonate early on and will make their progress in STEM subjects that much easier as they get older.
- One of the most important ways to learn is through doing - the process of trial and error and seeing how things work in the real world. Think about ways of getting your daughter involved in fixing things and even taking things apart to see how they work. For instance, if her scooter breaks, work with her to solve the problem and fix it together. This can sow the seeds of an interest in engineering and mechanics which are careers currently very underrepresented by women.
- STEM subjects are built on the skills of critical thinking, and critical thinking skills can be taught and nurtured in even very young girls. Start by demonstrating how to observe, for example with what is going on when you go outside, be it the changing of the seasons, the way things move in the wind or how many cars there are parked on the street. Then encourage your daughter to ask questions, create hypothesis and test hypothesis. The basis of STEM come from an interest in how something works and asking "why".
- Encourage your daughter to be involved in team sports. Most STEM careers involve some kind of collaboration and teamwork is an important skill. Help your daughter understand the value of this transferable skill and how it can be used in a future STEM career.