

## ALL Girls STEM Clubs & Camps

Things to consider when running an all-girls STEM club or camp

By Jessica Hughes, Hyde Park School STEAM Lab Teacher

1. **Mentors**: It is important to include mentors in the process because girls tend to believe that the STEM field is solely interested in hiring men. They will dabble in STEM clubs and STEM activities and still avoid STEM related courses in their education due to holding this belief. In order for them to begin to consider the STEM field as an actual possibility for a career path, they need to see women who they can relate to in STEM careers.
2. **Spatial Sense**: Girls tend to come into school with less developed spatial sense. This is due, in large part, to the toy marketing gender roles. Toys that typically promote spatial sense tend to be marketed more for boys. While the tide is turning in the market, there is still much progress to be made. Spatial awareness is a very large part of STEM and especially in 3D printing. Girls need more guidance and practice in order to be more successful in this area.
3. **Math**: Research consistently shows that, even from a fairly young age, girls are less confident and more anxious about math than boys. Moreover, these differences in confidence and anxiety are larger than actual gender differences in math achievement. These attitudes are important predictors of math performance and math-related career choices. Men and women also tend to prioritize different values when selecting a profession. For example, women tend to care more about working with people, and men tend to be more interested in working with things, and research shows that this difference relates to gender gaps in selection of math-related careers. Promoting a growth mindset in Math & making sure that girls are given plenty of encouragement in this element of the club will help the girls feel more successful and fulfilled.
4. **Purpose**: It is important for girls to feel that what they are doing has a purpose for the greater good. Women who pursue STEM careers are typically choosing fields like medicine and bio-medical engineering where they feel they can change people's lives. It's not that these fields are easy; it's simply that women often need the how and the why addressed when choosing career paths. When framing a club for girls, it's imperative to show them how what they are doing can make a difference in people's lives.
5. **Growth Mindset**: Girls tend to hold many preconceived notions regarding STEM skills. They often believe that boys are somehow pre-programmed or have natural abilities in STEM skills that they, themselves, were born without. Debunking these myths can be difficult. Promoting a growth mindset can help girls feel more confident and be more successful.