



Photo courtesy of Mount Vernon Public Library

Essential Discussions for Planning Your Tween STEM Programs

STEM (Science, Technology, Engineering, and Math) opportunities continue to be an issue of equity, diversity, inclusion, and accessibility. An “achievement gap” persists between low- and high-income students, and women and people of color are still underrepresented in STEM careers¹. Libraries can play an important role in a tween’s development by tapping into their interests and providing a safe place for them to explore STEM concepts and potential careers.

Working with tweens is both a challenge and a joy. They are changing physically, cognitively, and emotionally, and have a deep desire for autonomy. However, they still display kid-like behavior and like to play! Here are some tips on tailoring your



Photo courtesy of Prince George’s County Memorial Library System

programs to meet tweens’ unique needs and showcasing the value — and fun — of STEM learning in their lives.

MAKE YOUR CASE FOR STEM & TWEENS

Are your staff members intimidated by working with tweens? Talk as a team about the unique characteristics of tweens and how you can tap into their playful side for fun and engaging STEM programs! Be sure to try at least one hands-on STEM activity — and have fun learning for yourself!

GO TO WHERE THE TWEENS ARE

Unlike young adults, tweens still rely heavily on adults for supervision and transportation so they may not be visiting the library on their own. Consider visiting nearby schools, afterschool programs, and faith organizations to share information with youth and caregivers about your tween programs.

TALK TO YOUR TWEEN PATRONS

Consider starting a Tween Advisory Board and learn about their interests. What music do they listen to? What social media do they use? What issues are important to them? Learn about what they like, and then find the STEM connections. For example, if they are showing an interest in wearing make-up, explore the chemistry of cosmetics!

CREATE A 'TWEEN-FRIENDLY' SPACE

Designate a comfortable and safe area just for tweens and invite them to help decorate it. Encourage them to create a playlist for background music. Tweens — especially those in need — may appreciate snacks or a meal if you can provide it.

CHALLENGE STEM STEREOTYPES AND EMBRACE DIVERSITY

It is important for girls and people of color to interact with older students and professionals in STEM who reflect their own diverse identities and backgrounds. One way to make STEM learning more inclusive is to offer your programs in Spanish.

For more guidance on creating tween STEM programs, visit:

<http://www.starnetlibraries.org/resources/tweens-and-stem>

For tween-friendly activities to try as a team, visit:

<http://clearinghouse.starnetlibraries.org/119-activities-for-tweens>

Content References:

¹ National Center for Education Statistics

<https://nces.ed.gov/>

Urban Libraries Council

<https://www.urbanlibraries.org/initiatives/stem-middle-school>



The [Urban Libraries Council](https://www.urbanlibraries.org/) and the Space Science Institute's National Center for Interactive Learning partnered on the Partners for Middle School STEM project. [HG&Co](#) provided evaluation. This initiative was made possible in part by an Institute of Museum and Library Services Leadership Grant (LG-95-18-0025-18).