



Tween Tech - Sample Concurrent Workshops

Electronics and Underwater Robotics: Learn about the underwater applications of electronics, robotics, and their role in scientific exploration. Build a hand-held flashlight to take home.

Let's Play! Explore how technology can enable children with disabilities to play with battery-operated toys. Using simple materials, you will build your own switch to try at home!

Lissajous Figures: Use light waves to create beautiful repeating patterns called Lissajous figures. Learn how to create your own Lissajous display with lasers, motors, and mirrors.

Mystery Diagnosis: Be part of a nursing team investigating the symptoms of a "patient," including listening to breathing sounds, reviewing x-rays, completing a patient interview, and making a diagnosis.

Solve a Murder in the Pines! Find out what happens behind the scenes of a murder investigation, including taking fingerprints, collecting hair samples, and giving a lie detector test.

The Chemistry of Modern Cuisine: Did you know modern chefs use science to create new and exotic dishes? Run chemistry experiments in which you get to lick the spoon and create dishes such as mango ravioli, coconut air, or chocolate Chantilly! (Allergens: milk and soy lecithin)

The Science of Clay: Here's your chance to take a really close look at "dirt!" See how the clay particles in soil provide plants with the water and nutrients they need and help grow the food we eat.

What Are You Paying For? We're told that nutritional protein supplements help to build muscle. But—are they better for you than good old-fashioned milk? Let's use science to find out!

What's the Chance of That? Probability helps us determine the likelihood of something happening. Discover the surprising patterns that lurk in the events of our everyday lives.

Finch Fun: a compact, affordable robot for computer science education, Finch is makes programming come to life. The Finch supports several programming languages and environments, ranging from intermediate-elementary to high school level learners.

Chaperone Workshop on Gender-Neutral STEM: participants will review the findings from *Solving the Equation: The Variable for Women's Success in Engineering and Computing* (AAUW, 2015). The report explores the factors underlying the underrepresentation of women in these fields, including stereotypes and biases, college curriculum, and workplace environment. This workshop focuses on changes that educators can make to combat stereotype and bias, to emphasize the social relevance of STEM careers, and to create more inclusive curricula and learning environments.

(Download the report, slides and 9:33 video at <http://www.aauw.org/research/solving-the-equation/>)

Chaperone Workshop on STEM College Majors and Minors: the key to STEM is integration of problem-solving, critical thinking, analytical reasoning, creativity, and teamwork. While essential to majors in mathematics and sciences, these integrated skill sets are also embedded in the health sciences, forensic and cognitive psychology in social sciences, creative arts such as drawing, painting, photography, and printmaking, environmental sustainability, and many more. This session will offer very brief overviews of STEM in each of the schools and colleges at the host campus, followed by a lengthy Q&A between participants and panelists with academic, advising, and admissions personnel.