

TECH SAVVY WORKSHOPS FOR GIRLS

Aquaponics (whispering roots)

Aquaponics is a means of producing food and saving water by raising fish together with plants in closed recirculating systems. Girls will learn basic aquaponics principles, techniques and system design methods as they prepare to build their own mini aquaponics system. Learn how STEM can be used to grow fish, great tasting food and minds!

Breaking Bones

Bones are designed to heal themselves, however they need our help. Girls will learn about how bones heal and the various devices biomedical engineers have developed to help them. The girls will experience being a biomedical engineer by using the engineering design process and test devices capable of stabilizing broken chicken bones.

Build a Chair - Engineering Everyday Materials into Real-World Solutions

Girls will be able to design a chair to hold at least one member's body weight with only newspaper and tape using the Engineering Design process. Girls will also discuss at least three ways that engineering cost effective materials into innovative designs can impact the world.

Clothes That Light Up – E-Textiles

Girls will use their creativity and design ideas to create a card that lights up using an LED, copper tape and a battery. This workshop is an introduction to the world of e-textiles. Electronic components are connected using conductive thread to make components light, vibrate, play music or detect the environment around them.

College Savvy

Girls will have a fun opportunity to “visit” and “interview” with local college representatives. They will complete a college application, identify their strengths and explore STEM options.

DNA: The Blueprint for Life

Girls will discuss what DNA is, why it is important, and how medical research is using DNA to understand diseases such as cancer. In addition, the girls will participate in a hands-on activity in which they will extract DNA from the cells of strawberries.

Robotics Style – Conveying Messages

Working in teams, the girls will explore different ways an open platform STEMBoT communicates. The girls will then use the BoTs to convey their directions to complete a course.

Roller Coaster Engineering

Girls will learn about the engineering involved in roller coasters. Then, girls will get to use their engineering skills to build their own roller coaster.

Twists, Turns and Surprises with Math

What is mathematics? Where do you find it? You may be in for some surprises. Girls will explore the mathematics connected to the twists and turns of mathematical puzzles and stunts, games and shapes and even doodles. They will also investigate the Golden Ratio patterns found in art, nature, and music.

SAVVY SKILL WORKSHOPS FOR GIRLS

Become a Better Saver and a More Savvy Spender

Girls will use “Banzai!” – An on-line educational tool that uses simulations of life scenarios to educate the importance of good money management skills and financial responsibility. Girls will work through fictional, on-line, income/expense transactions similar to those they’ll encounter in real life.

Cybersecurity

Girls will learn about opportunities and threats when using the internet – quick research, social networks, downloading, passwords, fraud, and predators. The girls will also learn about safety measures regarding cybersecurity and protection of their computers, cell phones, and how to carefully use social media.

My Awesome Brain: The Many Jobs of the Brain and STEM Women

Girls will learn about how the brain transforms touch into actual feelings in her body, what happens when her eyes get tired, and how to understand the brain with neuroimaging. This workshop focuses on learning several jobs of the brain as well as jobs that women in STEM have that relate to the brain.

You Only Have ONE Body!

Girls will participate in two interactive games to recognize the various dimensions of health. Girls will learn some tips and tricks to stay healthy and learn that taking care of herself and her health is the best gift she can give herself.