



BOYS & GIRLS CLUBS
OF MERCER COUNTY
Teen STEM Conference Overview

When: Thursday November 10th
8:30 am to 1:30 pm

Where: 1040 Spruce Street, Lawrenceville, NJ 08648

What: Each year the Boys & Girls Clubs of Mercer County (BGC Mercer) coordinates a Teen STEM Conference for 4th- 9th graders. We hope to have 175-225 teens in attendance (in-person and on-line options available). The cost to attend is \$35 (this pays for food and logistics). However, thanks to our generous sponsors many youth attend the conference at no cost.

Purpose: To provide Mercer County (and other) teens with an opportunity to learn about post-secondary career and educational opportunities that relate to STEM. The conference also provides an opportunity for teens to engage in hands-on STEM activities to learn more about STEM. We target middle school age students in an effort to get them interested in STEM early on.

Ways to Get Involved:

1. Facilitate a workshop- Workshops can be presented in-person or on-line (online must not require any supplies). The duration of the activity should be 45 minutes, and each workshop will be presented in each of 3 sessions. In-person presenters are responsible for providing any supplies needed.
2. Participate in a Career Panel – Career panels are based on different fields within STEM and various companies/careers in each field should be represented. A moderator will ask various questions for panelists to answer about their company, job, or training/education. Students can also ask questions. We typically have 4-5 panelists on each panel.
3. Volunteer at the conference- Volunteers help with logistics (registration/check-in, directions towards workshops, lunch set-up, and overall support of the day)

Some of Our Previous Workshops:

IT Tech – Learn what it takes to become IT essential trained to work on computer hardware and software, what jobs/careers this translates into, as well as opportunities to gain internship experiences while still in high school. Student will learn various PC component parts and in teams will re-assemble a PC.

Microscopic Wonders of the World - students will be introduced to general and clinical microbiology. A brief introduction of the profession of medical laboratory science will be





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provided. Students learn how to use the microscope, visualize microorganisms, human blood cells under the microscope, and perform activities related to laboratory science.

"Slime Time" Ooze into a gooey class of sliming around! In this program, we will explore, create and play with the most entertaining and useful molecule known to science, polymers, and discover its many shapes and forms.

Build – This engineering focused workshop will take students through two activities which involve basic engineering principals in which they will build at home

Germ Transmission The focus of this workshop will be on germs and how they are transmitted. Students will learn about different types of germs, the history of pandemics, viral transmission and how to help stop the spread of viruses. Experiments will be conducted to highlight different types of viral transmission.

Oceans - Using materials often used in the kitchen, such as salt, cooking oil and water, we will create miniature oceans, to study ocean waves and currents. This workshop will be appropriate for both middle- and high-schoolers, and include lots of hands-on stirring and shaking.

Connected Car- What the Future Holds–What is a connected car and how does it work? Learn how AT&T's Mobility Solutions can navigate and enhance your driving experience. See videos of the newest mobility features in the coolest cars.

How Medicine Works-Students learn concepts of how chemistry, biology, mathematics, and data are used to help us understand what happens to medicine after people take it through a series of videos, discussions, and interactive coding notebook examples. Students go through basic elements of how data modeling and simulation can help us understand how our medicine should be taken.

Career panels are

- Careers in Environmental STEM
- Technology Careers
- STEM Majors in College
- Women in STEM
- General STEM Careers

For more information or to register as a presenter go to: <https://bit.ly/BGCMSTEM22>

Questions?: Contact Debra Lawrey, at 609-695-6060 ext. 221 or dlawrey@bgcmercerc.org

