EXTENSION SNAPSHOT
Fulton-Mason-Peoria-Tazewell Unit
October 2022

Illinois Extension
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

4G STEM Camp provides opportunities for youth to see STEM careers in action

Career exploration is a big part of the 4-H world. Sometimes members are exposed to careers subtly and other times they are the main focus. For the past nine years, University of Illinois Extension staff have focused on careers in science, technology, engineering, and math (STEM) at 4G STEM Camp (Girls + Games + Gadgets = Genius), held in Central Illinois.

This past June, twenty-seven middle school girls and four teachers participated in the week-long camp designed to provide meaningful exposure to STEM careers in authentic workplace settings. Through site visits to Bradley University biology labs, Jump Simulation, Caterpillar Innovation Center, and Farnsworth Group the young ladies learned from a paramedic, an anatomy lab scientist, interior designers, landscape architects, structural architects, civil engineers, mechanical engineers, and a college science professor, to name just a few.

These visits included hands-on activities, facility tours, and interactions with on-site professionals working in STEM careers. This site visit format is one of the unique aspects of 4G STEM Camp, as youth are not only developing vital STEM skills but are also interacting with workers in the STEM fields and experiencing authentic job sites. When parents were asked about their children's experiences, one stated that the greatest benefit of 4G STEM Camp was that the girls were able to go to real companies to learn from experts and engineers about real jobs. Additionally, 90% of the parents surveyed stated that 4G STEM Camp allowed their daughters to get to know professionals who can answer questions about STEM careers.

Research has shown that providing access to meaningful STEM environments for learning and in realistic settings is critical (STEM Task Force Report, 2014). Additionally, developing partnerships with workers in STEM careers is one way to provide a broader picture of what STEM is, where STEM happens, and who is working in STEM. This type of interaction provides meaningful exposure to STEM careers (O'Connell et al., 2017) and influences how students engage and feel connected to the STEM community.

The four local teachers participated as mentors and learners. By engaging teachers in this learning experience, it helps expand the possible impact as these teachers create STEM career exploration activities with community partners in their own schools. All of the teachers who participated shared that they made connections that will be useful in their future teaching.

4G STEM Camp is a partnership with Bradley University. Each year a new set of local partners join the team to host the site visits. Central Illinois is a wonderful hub of STEM-related careers and 4G STEM Camp is a success thanks to the involvement of the local workforce.

Working alongside a paramedic to intubate a training mannequin was one of the STEM learning opportunities 27 young ladies and four teachers experienced at 4G STEM Camp this summer. This year's week-long day camp included site visits to Bradley University biology labs, Jump Simulation, Caterpillar Innovation Center, and Farnsworth Group.

Judy Schmidt
4-H Metro Youth Development Educator
schmid7@illinois.edu