

## **STEM**

Science, Technology, Engineering, and Math

For more than a century, 4-H has engaged youth in science, technology, engineering, and math (STEM). This has traditionally meant a solid focus on agricultural sciences but in an effort to keep up with increasing needs and promote youth interest in STEM fields, Georgia 4-H has grown to include rocketry, robotics, bio-fuels, renewable energy, computer science, environmental sciences, and much more. Georgia 4-H'ers have the opportunity to research, learn, experiment and present their findings about topics of interest with the guidance of adult mentors and field experts. This independent, yet guided, work allows youth to delve into various programs of study, explore issues and challenges facing our world, and introduces them to career and educational opportunities available to them.

## 40,140 Georgia 4-H'ers participate in STEM programs

# 4-H Common Measures Report on Science

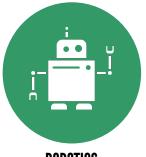
**75**%

of 4-H'ers surveyed would like a job that involves using science

89%

of 4-H'ers surveyed know how to analyze data to draw conclusions about a hypothesis **87**%

of 4-H'ers surveyed know how to communicate the results of an experiment to others







ENVIRONMENTAL EDUCATION



SCIENCE



ENVIRONMENTAL EDUCATION

"I've been told that people figure out who they are and where they belong by the age of about 25. But lucky me found Georgia 4-H in the 7th grade. This club will always be a family to me and a place that I know I belong." -Evie Woodward, Coffee County 4-H'er





# Programs in STEM 4-H

(Science, Technology, Engineering, and Math)

### **Activities & Competitions**

#### **Robotics**

Through various local county clubs and Project Achievement, 4-H'ers explore aspects of robotics and robotics careers including engineering and design principles, problem solving, decision-making and logical reasoning, science process and design skills, and technology related to robotic systems.

#### **Mission Make-It**

Georgia 4-H is providing this exciting opportunity for students to engage in the engineering design process, teamwork, critical thinking, and positive youth development. In 2018 and in recognition of the 100-year centennial of World War I, 4-H'ers will engage in hands-on activities to gain a deeper understanding of the engineering, tools, and technology used during World War I.

#### STEM Ambassadors

Georgia 4-H STEM Ambassadors provide youth the opportunity to engage in hands-on science, technology, engineering and math (STEM) projects in their home counties and surrounding area. Given training and materials, STEM Ambassadors deliver STEM activities, curriculum, and sharing in a variety of settings.

#### **Technology Team**

The Georgia 4-H Technology Team provides marketing support for Georgia 4-H. Through various projects such as the No Bull Challenge, blogs, social media, photography, and videography, team members gain a valuable understanding of teamwork, responsibility, and dedication. The goal of this group is to inform and inspire others about the importance of communication and technology.

#### **National Youth Science Day**

Annually, National 4-H launches an exciting National Youth Science Day challenge, Code Your World is the 2018 event, inviting kids to get involved in computer science. Code Your World is a four-part challenge that teaches kids ages 8-14 to apply CS to the world around them through hands-on activities that bring coding to life through games and interaction.

### **Project Achievement Topics**

- Computer Information Technology
- General Science
- Entomology
- Geology
- Physical, Biological, and Earth Science
- Environmental Science
- Marine Science
- Paleontology
- Herpetology
- Robotics
- Engineering and Technology





The University of Georgia 4-H program is the largest youth leadership organization in the state.