



BUILDING SCIENCE LITERACY AND FUTURE STEM PROFESSIONALS

75,500

Michigan 4-H youth experiences related to science, technology, engineering and math (STEM) in 2021-2022

344

Michigan 4-H programs offered in 2022 on STEM

PRIORITY

A R E A S

Michigan State University Extension's 4-H Youth Development programs excite youth about future STEM careers and build critical STEM skills. These programs seek to increase:

- **Aspirations and attitudes toward science.**
- **Interest and engagement in science.**
- **Skills in critical thinking, problem-solving and decision-making.**

The experiential inquiry-based learning process is offered through a variety of science experiences ranging from animal science to robotics and biology to consumer science.

IMPACTS

Michigan 4-H science activities help youth recognize the relevance of science as well as become more likely to see themselves pursuing a related career and equipped with cutting-edge STEM skills that are in high demand. A 10-year longitudinal study conducted by Tufts University found that 4-H youth are:



2X

more likely to participate in science programs during out-of-school time.



3X

more likely to take part in science programs as a female in grade 12

“ We have a better understanding of how engineering impacts our daily lives. ”

— Parent of a youth participant in a Michigan 4-H science program

For more information about MSU Extension's science programs and resources, contact 4Hscience@msu.edu or visit us online.





Animal Science Career Quest participants also had the opportunity to participate in hands-on learning labs that allowed them to dig deeper into careers, topics and species of the Animal Science department. These took place at Anthony Hall, as well MSU’s South Campus Animal Farms, including the Horse Teaching and Research Center, Dairy Cattle Teaching and Research Center, Sheep Teaching and Research Center and Veterinary Research Farm. Sessions included broodmare management and foaling, dairy cattle genetics and selection, livestock judging, dairy cattle judging, equine exercise physiology, animal welfare assessment, milk harvesting, and service and assistance animals.

For many of the attendees, Animal Science Career Quest left youth excited about the variety of possibilities that exist in the world of animal science.

After the event, one parent shared:

COWS, COURSES AND CAREERS: ANIMAL SCIENCE CAREER QUEST

Held for the first time in 2022, Animal Science Career Quest is a joint program of Michigan 4-H and the MSU Department of Animal Science. Open to youth ages 12-19, the event introduced youth to the many animal science programs available at MSU and where those educational efforts could take them post-graduation. In total, 23 youth and six adults from 18 different Michigan counties took part in the event in 2022, which was held on the campus of MSU.

Throughout the three-day event, more than 60 MSU Extension and Department of Animal Science faculty, staff, alumni, graduate and undergraduate students volunteered their time to teach youth about the animals they study, topics they research, and other possible career choices in the animal science fields. Species covered included beef cattle, companion animals, dairy cattle, horses, poultry, sheep and swine. Topics of study included animal behavior and welfare, animal health, genetics, animal nutrition, animal products and meat science, and animal reproduction. The event also included an alumni career panel where former Department of Animal Science students shared the good, the challenging, and the very real experiences of being an MSU student.

“My daughter now has a career goal because of this event. The dairy cattle nutrition session was life changing for my her, she learned so much and is now excited to plan for a career in that field!”

