PROGRAMMING PROFILE

Equipping Young People for Success Through Science Literacy

For more than 100 years, Michigan State University (MSU) Extension has been helping people address critical issues, needs and opportunities by delivering the vast knowledge and resources of MSU directly to individuals, communities and businesses. Seeking to improve lives and the state overall, MSU Extension focuses on four key area of importance: leveraging natural and human assets, enhancing agriculture and agribusiness, improving health and nutrition for Michigan residents, and preparing Michigan's children and youth for the future.

With a goal of ensuring every Michigan child is prepared with the knowledge, tools and skills to lead a healthy and productive life, MSU Extension's children and youth programming uses the experiential learning model through which children learn best. This hands-on, learn-by-doing programming is concentrated in five core areas, one of which is developing a capacity for success in Michigan's youth through the enhancement of science literacy.

Through this priority area, MSU Extension seeks to engage youth and the adults who serve them in hands-on learning that cultivates an understanding of the process of science, or how science works, and increases their knowledge of science content and topics. As a result, youth are better prepared for success now and in the future.

Delivered through webinars, face-to-face workshops and other mechanisms, MSU Extension offers a variety of training, curricula and materials to support the development of science literacy in youth. Resources in this priority area focus on:

ANIMAL SCIENCE

Animal agriculture is a major industry in Michigan and across the United States, and animal science projects are one of MSU Extension's longest supported youth programs. Through these projects, youth learn about biological sciences as well as life skills such as responsibility and accountability. Whether youth focus on livestock or pets, participate in horse judging or quiz bowls, animal science programs and curriculum enhance youth knowledge in almost any species area. Resources such as the Animal Science Anywhere lessons and weekend-long content workshops support youth and adult audiences looking to explore animal science. In addition, programs such as 4-H Animal and Veterinary Science Camp and animal-focused sessions at 4-H Exploration Days allow youth to explore future animal science careers and opportunities in depth.

ENVIRONMENTAL AND OUTDOOR EDUCATION

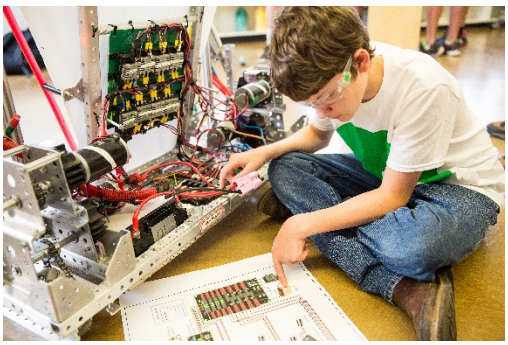
With an abundance of fields, forests and wetlands, Michigan's natural environment provides an exciting opportunity for young people to learn about the interconnection of people and nature. Through its environmental and outdoor education projects, MSU Extension teaches youth

about science and ecology, interrelationships and impacts, health, wellness and positive outdoor experiences while developing a sense of stewardship for our natural resources. Trainings and resources available in this topic area include the 4-H Outdoor Adventure Challenge, water quality monitoring, 4-H Great Lakes and Natural Resources Camp, and Junior Citizen Planner, among others.

PLANTS, SOILS AND GARDENING

With useful applications in agriculture, food production, food access and healthy living, MSU Extension offers youth and adults who serve them the opportunity to explore real-life scenarios and educational opportunities in the field of plant and soil sciences. By participating in projects that involve crops, vegetables, fruits, weeds, horticulture, gardening and agronomy, youth learn about plant growth and varieties, soil types, pest control measures, planting equipment and gardening techniques. Resources to support education in plant and soil sciences include *Seeds, Weeds & Garden Reads*; *4-H Flower Gardening Project Guide*; the *Michigan 4-H Horticulture Project Snapshot;* the Michigan 4-H Children's Garden and more.

SCIENCE AND ENGINEERING



Research indicates a growing demand for individuals educated in STEM (science, technology, engineering and mathematics) – especially in the field of engineering. As a result, MSU Extension places an emphasis on exploring the process of science in all program and project areas. In addition, we engage youth in engineering in specific project areas such as aerospace, computers, electricity, astronomy and robotics. 4-H Science Blast in the Class, EV3 Design Engineering and LEGO Robotics, a variety of science-based project snapshot sheets and more are all among the resources MSU Extension provides to support STEM education and an understanding of the science process.

CONTACT US

For more information about MSU Extension's science literacy programs and resources, contact 4hscience@anr.msu.edu or visit one of the following sites: http://msue.anr.msu.edu/topic/info/science_technology, http://msue.anr.msu.edu/topic/info/animal_science or http://msue.anr.msu.edu/topic/info/environmental_outdoor_education.