

Governor's STEM Academy Brief



Office of Career, Technical, and Adult Education

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The purpose of the monthly brief is to provide information, resources, and a networking vehicle to support the Governor's STEM (science, technology, engineering, and mathematics) Academies in Virginia.

CAREER CLUSTER SPOTLIGHTS

The Governor's STEM Academy for Agriculture and Maritime Studies located at the Northern Neck Technical Center, offers instructional programs in Greenhouse Management, Landscaping, and Turf Management. The vision of the program is to prepare students to meet the ever-growing demands of the local horticultural industries. Students at the Academy learn valuable skills in greenhouse production and nursery management to become career ready for the specialized industries.

The fastest-growing sector of agriculture in the Northern Neck and Middle Peninsula is the horticultural sector of the agriculture industry. The area is home to numerous and diverse selections of nursery operations, vineyards, and specialty vegetable production operations. These operations range from traditional seasonal row crop production to operations that are embracing the use of high tunnels and even hydroponic and aquaponics production. Students participate in work-based learning experiences, including internships, that further enrich their knowledge and technical skills in the Horticultural program.

CURRENT DEVELOPMENTS IN AGRICULTURE, FOOD, AND NATURAL RESOURCES

Trends in the industries:

[5 Jobs You Can Obtain with a Degree in Agriculture](#) describes jobs that are perfect for an agricultural graduate.

[Game-changing Agroforestry Systems](#) details the exciting opportunities in the agroforestry systems.

[Take Time to Look into the Natural Science of Water Chemistry](#) editorial informing readers about the process of water testing

[Albermarle County Earns National SolSmart Designation](#) press release

[Agricultural Extension as Crucial Support to Development](#) opinion piece addressing the need for agriculture development in fighting rural poverty

[The Complicated Growth of 4-H](#) details the history and evolution of 4-H

[Seed Companies Spur Rise in Irrigation in Illinois](#) explores the impact of irrigation on farmers in the Midwest

Cybersecurity issues affecting the Agriculture, Food, and Natural Resources Career Cluster:

[What is the Cybersecurity Threat in Agriculture?](#) explores who the biggest threat is in the farming community

[What Does Cybersecurity Have to do With Our Food Supply?](#) explains agro-terrorism and its relation to cybersecurity.

[Midwest Agriculture is a Prime Target for Theft of Intellectual Property and Cyber Attacks](#) exposes how vulnerable agriculture is to cyber attacks

INSTRUCTIONAL STRATEGIES IN AGRICULTURE, FOOD, AND NATURAL RESOURCES

Instructional materials such as lesson plans, presentations, and assessment information:

- [Science Buddies: Food Scientist](#)

- [Plant Science Lesson Plans](#)
- [The Biology Corner](#)
- [Agricultural Power Systems](#)
- [Nature Works Everywhere](#)
- [Usable Bayfield Conservation Lesson Plans](#)
- [Food Scientist Lesson Plans](#)
- [Biochemist Lesson Plans](#)
- [Environmental Engineer Lesson Plans](#)
- [Animal Scientist Lesson Plans](#)

CAREERS IN AGRICULTURE, FOOD, AND NATURAL RESOURCES

Information on various aspects of the career cluster:

- [Agribusiness and Training Facts](#)
- [Top 10 Careers in Agriculture](#)
- [What is a Horticulturalist?](#)
- [BLS: Agricultural Equipment Operator](#)
- [Farm Workers](#)

Information on careers in food sciences:

- [Career as an Agricultural and Food Scientist](#)
- [What is an Agricultural Food Scientist?](#)
- [IFT: Become a Food Scientist](#)
- [Top Agricultural Careers in Food Science](#)
- [10 Cool Jobs in the Food Industry](#)

Information on careers in natural resources:

- [Career Overview: Natural Resources Systems](#)
- [What is a Biochemist?](#)
- [BLS: Biochemist](#)
- [What is an Environmental Engineer?](#)
- [BLS: Environmental Engineers](#)
- [What Does it Mean to Study Environmental Engineering?](#)
- [Natural Resources and Conservation Careers](#)
- [Forestry and Natural Resources](#)
- [Water and Wastewater Treatment Plant and System Operators](#)

Information on careers in animal science:

- [Top Careers in Animal Science](#)
- [Animal Science: Job Description](#)
- [What Kind of Job Can I Get with a Degree in Animal Science?](#)
- [Animal Science Careers](#)
- [Guide to Careers in Animal Behavior](#)

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