

CTE CONTENT AREA: Agriculture

CONTENT MODULE TITLE: Introduction to Agriculture and Leadership

MODULE DESCRIPTION

This module introduces students to the agriculture industry and shows students ways the industry provides the basic needs of food, clothing, and shelter for humans. Students are introduced to leadership skills and the role of the FFA in developing active citizens in the agriculture industry. Students explore the wide variety of career options in agriculture and identify the knowledge, skills, education, and training necessary for success within these fields.

GUIDING QUESTION

What knowledge and skills are necessary to demonstrate introductory understanding of what is needed to be a successful citizen in the agriculture industry?

MODULE CONTENT

Introduction to Agriculture and Leadership

1. Agriculture Industry

Students will

- a) Give examples that show the interdependence of humans and nature
- b) Explore the wide scope of the agriculture industry
- c) List and describe the major sectors of the agriculture industry, such as animal science, plant science, mechanical science, conservation/environmental science, and agribusiness
- d) Identify problems facing the agriculture industry and tell how they are being addressed

2. Agricultural Commodities

Students will

- a) Define "agricultural commodity"
- b) List and describe agricultural products used in daily life
- c) Investigate agricultural products produced in the local community, state, nation, and world
- d) Discuss the difference between needs and wants
- e) Identify supply and demand concepts
- f) Describe the relationships between agriculture and the economy

3. Leadership

Students will

- a) Identify qualities of effective leaders and effective group members
- b) Establish healthy, supportive relationships that encourage the ideas, perspectives,

- and contributions of all group members
- c) Appreciate the variety of skills people bring to a project and delegate responsibilities
 - d) Develop skills for cooperating, compromising, and collaborating to reach a group goal

4. FFA Opportunities

Students will

- a) Identify the opportunities available through FFA and student leadership organizations
- b) Understand the benefits and responsibilities of participation in FFA experiences

5. Careers in Agriculture

Students will

- a) Investigate a career in the agriculture industry and identify the pathways used to reach that career
- b) Assess personal knowledge, skills, and interest in careers in agriculture and evaluate personal suitability for these careers
- c) Describe ways that leadership skills contribute to career success

ILLUSTRATIVE ACTIVITIES by Theme Module

Career and Community Connections

Agriculture Sector Videos

Students work in small groups to produce 2-3 minute videos highlighting the key features of one sector of the agriculture industry, such as animal science, plant science, mechanical science, conservation/environmental science, or agribusiness. After viewing each video, students prepare one question they have about each sector. Students trade questions. Students find the answers to classmates' questions and report back to class.

Communication and Interpersonal Relationships

Poster Presentations

Students prepare a poster, summary sheet, and public presentation on a job in the agriculture industry. Poster, summary, and presentation should detail specifics of a particular job, including education needed, salary range, working conditions, potential for career growth, advantages, and disadvantages. Students may participate in the related FFA Jr. "People in Agriculture Career Development" event ([New York State FFA People in Agriculture Contest](#)).

Financial and Consumer Literacy

Commodity Maps

As a class, develop a working definition of the term "agricultural commodity." Provide students with a map of New York State and a list of New York's agricultural commodities. Assign small groups of students to one of the growing regions in the state. Groups research their regions and place the appropriate commodities in their region on the map. Groups present their maps to the class and point out the features of the region that support the commodities produced there. Discuss how a community's economy is related to the contributions of its region's agricultural commodities.

Health, Safety, and Wellness

Farm-to-School Menus

Students work in small groups to develop school lunch menus for Farm-to-School Week, featuring local agricultural products. Students present their menu ideas to the school cafeteria manager and work to include their menus into the school lunch offerings.

Problem Solving and Innovation

Students research the use of wind energy in agriculture, both historically and in the present. Small groups design and build windmills using everyday supplies, such as wooden sticks, wooden spoons, bendable wire, string, paperclips, rubber bands, toothpicks, aluminum foil, tape, dowels, glue, paper, cardboard, and plastic wrap. Students test their windmills using blow dryers or fans, evaluate their results, and present reflections to the class. Discuss how coexisting wind farms and agricultural farms might benefit a community.

Sustainability

Sustaining an Organization

Students research the background and development of career and technical student leadership organizations, including FFA. Students create timelines showing milestones in the organizations' histories. Invite high school FFA leaders and alumni to class to share their experiences in the organization. Ask guests to focus some comments on the organization's plans to stay relevant and active in the future. Following the presentation, students add future milestones to their timelines.

STANDARDS ADDRESSED

New York State Career Development and Occupational Studies (CDOS) Standards Intermediate Level

<http://www.p12.nysed.gov/cte/>

Standard 1: Career Development

Students will be knowledgeable about the world of work, explore career options, and relate personal skills, aptitudes, and abilities to future career decisions.

Standard 2: Integrated Learning

Students will demonstrate how academic knowledge and skills are applied in the workplace and other settings.

Standard 3a: Universal Foundation Skills

Students will demonstrate mastery of the foundation skills and competencies essential for success in the workplace.

Common Career Technical Core Standards

<https://www.careertech.org/career-ready-practices>

Career Ready Practices

1. Act as a responsible and contributing citizen and employee
2. Apply appropriate and academic and technical skills
4. Communicate clearly and effectively and with reason
9. Model integrity, ethical leadership, and effective management

10. Plan education and career paths aligned to personal goals
12. Work productively in teams while using cultural global competence

National Agricultural Education Standards

<https://www.ffa.org/thecouncil/afnr>

- CS.01. Analyze how issues, trends, technologies, and public policies impact systems in the Agriculture, Food, and Natural Resources Career Cluster
- CS.02. Evaluate the nature and scope of the Agriculture, Food, and Natural Resources Career Cluster and the role of agriculture, food and natural resources (AFNR) in society and the economy
- CS.05. Describe career opportunities and means to achieve those opportunities in each of the Agriculture, Food and Natural Resources career pathways
- CS.06. Analyze the interaction among AFNR systems in the production, processing and management of food, fiber and fuel and the sustainable use of natural resources.

* CRP .01,.02,.04,.09,.10,.11 Standards coincide with Common Career Technical Core Standards

RESOURCES

New York Agriculture In_The Classroom (NYAITC)

www.agclassroom.org/ny/

This website is a partnership of Cornell University, the NYS Department of Agriculture and Markets, the NYS Education Department, Cornell Cooperative Extension, and the New York Farm Bureau. Resources include the Agricultural Literacy Curriculum Matrix, lesson plans, and websites for classroom use.

National FFA

Ag Explorer

<https://www.agexplorer.com>

National FFA and Discovery Education have created a comprehensive career resource to help students explore the broad range of careers within the industry of agriculture. Students learn about agriculture careers by watching the videos, exploring the career pages and completing the Career Finder interactive.

New York State FFA

nysffa.org

The New York State FFA webpage houses information on events. Information about Junior Competition Events, FFA Manual, FFA Student handbook, and state contacts are available.

American Farm Bureau Foundation for Agriculture

www.agfoundation.org

This website offers free downloadable materials to help students develop agricultural literacy and links to other resources for classroom use. Some materials are specifically developed for middle-school students.

New York State Department of Labor

New York State Career Zone

June 2018

NYS Middle-level CTE

Preliminary Release for Field Review and Piloting

<https://www.careerzone.ny.gov>

Career Zone is a no-cost online career exploration and planning tool developed by the New York State Department of Labor. It offers career and education information on thousands of careers, as well as, self-assessment and career planning tools. Career Zone is appropriate for users from middle school through adult.

United States Department of Labor
CareerOneStop

<https://www.careeronestop.org>

CareerOneStop is the career, training, and job search website for the U.S. Department of Labor. The website serves job seekers, businesses, students, and career advisors with a variety of free online tools, information and resources.

Association of Career and Technical Education
Career Planning Guide

https://www.acteonline.org/wp-content/uploads/2018/02/ACTE_CC_Paper_FINAL.pdf

Research has identified middle school as a time when students can benefit the most from career exploration, a process of building self-awareness, learning about potential careers, and developing a plan for reaching future goals.

AdvanceCTE
Middle Level Career Interest Inventory

<https://cte.careertech.org/sites/default/files/StudentInterestSurvey-English.pdf>

AdvanceCTE provides a Career Interest Inventory worksheet to use with students in helping them identify the potential matches to the 16 career clusters available to them.

Association of CTE Administrators (ACTEA)
CTE Strong Videos

<http://www.ctestrong.com>

Edge Factor has created a series of videos related to career and education that provide students with a very contemporary perspective on CTE options. Career Cluster videos provide a new look at the many career options that students have in high school and beyond.

Career and Technical Education Technical Assistance Center of New York (CTE TAC)

<http://nyctecenter.org/>

The Career and Technical Education Technical Assistance Center (CTE TAC) operates under a state contract to assist the New York State Education Department (NYSED) in carrying out its mission of improving the quality, access, and delivery of career and technical education through research-based methods and strategies resulting in broader CTE opportunities for all students