Unit 1: FFA- Future Farmers of America 2024

Content Area: **CTE**
Course(s): **Horticulture II**
Time Period: **September**
Length: **1**
Status: **Published**

Unit Overview

Developing Leadership and Communication Skills

Enduring Understanding

Explain the mission and strategies, color, motto, parts of the emblem, and organizational structure of the National FFA Organization.

Begcoming familiar with the Noational FFA Organization's history and the purposes for which it was founded will help you understand the benefits the organization has to offer.

Supervised agricultural experience (SAE) programs involve practical agricultural activities performed by students outside of scheduled classroom and laboratory time.

The FFA Creed is a basic statement of beliefs that serves as a common bond between new members of the organization.

The National FFA Organization has four degree areas for active members.

The Programs of Activities serves as a road map to guide an FFA chapter toward it's annual goals.

Career Education Connection

AGRI.9-12.4	Power, Structural, and Technical Systems
AGRI.9-12.9.4.12.A.(1).1	Examine and conduct food product development and research activities that demonstrate application of food science principles to enhance product quality and appeal.
AGRI.9-12.9.4.12.A.(2).1	Examine and apply knowledge of basic plant anatomy and physiology, using taxonomic and other classifications to build a working understanding of functional differences among plant structures.
AGRI.9-12.9.4.12.A.(2).2	Describe and implement the principles of plant production and management in both domesticated and natural environments, applying principles of anatomy and physiology to enhance plant production.
AGRI.9-12.9.4.12.A.(2).3	Evaluate and implement the fundamentals of production and harvesting when producing plants to demonstrate plant management and production techniques.
AGRI.9-12.9.4.12.A.(2).4	Exercise elements of design commonly used by professionals in plant systems careers by enhancing an environment (e.g., floral, forest, landscape, or farm) for a variety of purposes.
AGRI.9-12.9.4.12.A.(4).1	Examine structural requirements and estimate project costs in order to facilitate effective planning for projects within this pathway.
AGRI.9-12.9.4.12.A.(4).2	Plan design and construction support services to facilitate the development of agricultural machinery, equipment, buildings, structures, and technical systems.
AGRI.9-12.9.4.12.A.(4).4	Explain physical science principles and apply them to engineering applications involving mechanical equipment, structures, biological systems, land treatment, power utilization, and technology to facilitate work within this pathway.
AGRI.9-12.9.4.12.A.(5).1	Communicate about natural resources using effective public venues to heighten awareness regarding conservation and resource preservation.

Data and Analysis

Student completion of Labs in class

SAE evatulation

CDE Results

Assesement of FFA Manual

Essential Questions

How, when, and why was the National FFA Organization founded?

What are the mission and strategies, colors, motto, parts of the emblem, and organizational structure of the National FFA Organization?

What is the meaning behind the five paragraphs of the FFA Creed?

Standards/Indicators/Student Learning Objectives (SLOs):

- 9.4.12. Career and Technical Education. All students who complete a career and technical education program will acquire academic and technical skills for careers in emerging and established professio
- 9.4.12.A. Agriculture, Food, & Natural Resources Career Cluster
- 9.4.12.A.34. Examine and summarize roles within teams, work units, departments, organizations, inter-organizational systems, and the larger environment to understand the nature and scope of this cluster and related organizations.

Lesson Titles:

- Determining FFA Degrees, Awards, and CDEs
- Determining the Benefits of an SAE
- Understanding FFA Officer Duties and Responsibilities
- Exploring the History and Organization of FFA

Career Readiness, Life Literacies, & Key Skills:

	Students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences.
TECH.K-12.1.1.a	articulate and set personal learning goals, develop strategies leveraging technology to achieve them and reflect on the learning process itself to improve learning outcomes.
TECH.K-12.1.1.b	build networks and customize their learning environments in ways that support the learning process.
TECH.K-12.1.1.c	use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.
	Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical.
TECH.K-12.1.2.a	cultivate and manage their digital identity and reputation and are aware of the permanence of their actions in the digital world.
TECH.K-12.1.2.d	manage their personal data to maintain digital privacy and security and are aware of data-collection technology used to track their navigation online.
	Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.
	Students use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions.
TECH.K-12.1.5.a	formulate problem definitions suited for technology-assisted methods such as data analysis, abstract models and algorithmic thinking in exploring and finding solutions.
TECH.K-12.1.6	Creative Communicator
TECH.K-12.1.7.d	explore local and global issues and use collaborative technologies to work with others to investigate solutions.

Assessments

Summative Assessment:

- CDE Results
- POA Results
- Presentation

Benchmark Assessments

Writing Prompt

Skills Based Assessment

Reading Response

Practical Lab

Alternative Assessment

Performance tasks

Project-based assignments

Problem-based assignments

Presentations

Reflective pieces

Concept maps

Case-based scenarios

Portfolios

Formative Assessment:

- Class discussion
- Edpuzzle
- Group work
- Oral response to questions
- peer evaluation
- Quizlet
- self evaluation and discussion with teacher

Inter-Disciplinary Connections:

	Language: System and structure, effective use, and vocabulary
	Reading: Text complexity and the growth of comprehension
	Writing: Text types, responding to reading, and research
SCI.K-2.K-2-ETS1-1	Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.
SCI.K-2.K-2-ETS1-3	Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.
SCI.K-2.K-2-ETS1-3.4.1	Analyze data from tests of an object or tool to determine if it works as intended.
FCSE.9-12.1.1.1	Summarize local and global policies, issues, and trends in workplace, community, and family dynamics that affect individuals and families.
FCSE.9-12.1.1.3	Analyze ways that individual career goals can affect the family's capacity to meet goals for all family members.

Diversity, Equity, and Inclusion

Amistad Mandate

Historical Context:

- **The Transatlantic Slave Trade:** Discuss the historical context of the Amistad incident, including the brutal reality of the transatlantic slave trade and its impact on individuals and societies.
- **The Fight for Freedom:** Explore the courageous actions of the enslaved Africans aboard the Amistad who fought for their freedom, highlighting themes of resilience, perseverance, and the pursuit of justice.

2. Agricultural Connections:

- **Forced Labor:** Discuss how enslaved Africans were often forced to work on plantations, including agricultural labor. Explore the harsh conditions and exploitation they endured.

- **Food Production and Sustainability:** Connect the Amistad story to contemporary issues of food justice, sustainable agriculture, and the importance of fair labor practices in the food system.

3. Leadership and Advocacy:

- **Inspiring Leaders:** Highlight the leadership qualities of individuals involved in the Amistad case, such as Cinque and his fellow rebels, as well as abolitionists like John Quincy Adams.
- **Advocacy for Change:** Discuss the importance of advocating for social justice and human rights, particularly in the context of agricultural and food systems.

4. Cultural Diversity and Inclusion:

- **Celebrating Diversity:** Explore the diverse cultural backgrounds of the enslaved Africans aboard the Amistad and the contributions of African Americans to agriculture and foodways.
- **Building Inclusive Communities:** Discuss the importance of creating inclusive and welcoming environments in FFA and agricultural communities, where everyone feels valued and respected.

5. Service Learning Projects:

- **Community Gardens:** Organize community garden projects that promote food access, sustainability, and social justice.
- **Food Drives and Donations:** Collect and distribute food to local food banks or shelters, addressing food insecurity in the community.
- **Educational Outreach:** Develop educational materials or presentations to teach others about the history of the Amistad and its relevance to contemporary issues.

By incorporating the Amistad story into FFA lessons, educators can help students develop a deeper understanding of history, social justice, and the importance of ethical leadership in agriculture.

- African Slave Trade
- Amistad
- Contributions of African Americans to our Society
- Slavery in America
- Vestiges of Slavery in this Country

Holocaust Mandate

Food Security and Sustainability:

- **The Importance of Food:** Discuss how food was used as a tool of control and deprivation during the Holocaust.
- **Food Security and Justice:** Explore the global challenges of food insecurity and the importance of ensuring equitable access to food for all.
- **Sustainable Agriculture:** Discuss the role of agriculture in promoting sustainability and mitigating climate change.

- Bias
- Bigotry

- Bullying
- Holocaust Studies
- Prejudice

LGBTQ and Disabilities Mandate

- **Diverse Career Paths:** Highlight the diverse career opportunities available in agriculture, including those for LGBTQ+ individuals.
- **Mentorship and Networking:** Connect students with LGBTQ+ mentors and role models in the agricultural industry.
- **Entrepreneurship and Innovation:** Encourage students to pursue entrepreneurial ventures and innovative ideas in agriculture.

By incorporating these themes into FFA lessons, educators can create a more inclusive and supportive learning environment for all students. It's important to be sensitive to the needs of individual students and to tailor lessons to their specific circumstances.

- Economic
- Political
- Social

Climate Change

Climate change is a pressing global issue, and the agricultural sector is both a significant contributor to and a victim of its effects. Incorporating climate change education into FFA lessons can prepare future farmers and agricultural leaders to address these challenges. Here are some potential lesson ideas:

Understanding Climate Change and Agriculture

- **The Science of Climate Change:** Explain the basic science of climate change, including greenhouse gas emissions, global warming, and the impacts on weather patterns.
- **Agriculture's Role in Climate Change:** Discuss how agricultural practices, such as livestock production and deforestation, contribute to greenhouse gas emissions.
- **The Impact of Climate Change on Agriculture:** Explore how climate change is affecting agricultural production, including increased pests, diseases, droughts, and floods.

Sustainable Agricultural Practices

- **Conservation Tillage:** Teach students about the benefits of conservation tillage, such as reduced soil erosion, improved soil health, and increased water retention.
- **Crop Rotation:** Explain how crop rotation can improve soil fertility, reduce pest and disease pressure, and conserve water.
- **Cover Crops:** Discuss the benefits of cover crops, including soil erosion control, nutrient cycling, and weed suppression.
- **Precision Agriculture:** Explore how technology can be used to optimize agricultural practices, such as

variable-rate fertilization and precision irrigation.

Climate Change Mitigation and Adaptation

- **Carbon Sequestration:** Discuss how agricultural practices, such as planting trees and cover crops, can help sequester carbon from the atmosphere.
- **Climate-Smart Agriculture:** Introduce the concept of climate-smart agriculture, which aims to increase agricultural productivity, adapt to climate change, and reduce greenhouse gas emissions.
- **Resilient Agricultural Systems:** Explore strategies for building resilience in agricultural systems, such as diversifying crops, developing drought-tolerant varieties, and investing in water conservation.

Community Engagement and Advocacy

- **Local Food Systems:** Discuss the importance of local food systems and how they can help reduce carbon emissions and support local economies.
- **Policy Advocacy:** Encourage students to advocate for policies that support sustainable agriculture and climate action.
- **Community Outreach:** Organize community events to raise awareness about climate change and sustainable agriculture.

By incorporating climate change education into FFA lessons, we can empower the next generation of agricultural leaders to build a more sustainable and resilient future.

Asian American Pacific Islander Mandate

Highlighting AAPI Contributions to Agriculture

- **Innovative Farming Techniques:** Discuss the innovative farming techniques and technologies developed by AAPI farmers, such as hydroponics and aquaponics.
- **Food Production and Processing:** Explore the significant role of AAPI communities in food production, processing, and distribution.
- **Cultural Foods and Culinary Arts:** Highlight the unique cultural foods and culinary traditions of AAPI communities, and how these traditions have influenced American cuisine.

Promoting Cultural Exchange and Understanding

- **Cultural Exchange Programs:** Organize cultural exchange programs with AAPI communities, such as farm visits, cooking demonstrations, and cultural performances.
- **Community Service Projects:** Participate in community service projects that benefit AAPI communities, such as food drives, volunteer work at community gardens, or supporting local AAPI businesses.
- **Global Perspectives:** Discuss the global impact of AAPI agricultural practices and food systems, and how these practices can contribute to sustainable agriculture and food security.

Addressing Bias and Discrimination

- **Promoting Inclusivity:** Create a classroom environment that is inclusive and respectful of all students, regardless of their cultural background or identity.

- **Challenging Stereotypes:** Discuss harmful stereotypes and biases against AAPI communities, and how to combat these stereotypes.
- **Advocacy and Social Justice:** Encourage students to advocate for social justice and equity for all, including AAPI communities.

By incorporating these elements into FFA lessons, educators can help students develop a deeper understanding and appreciation of AAPI cultures and contributions to agriculture.

- Economic
- Political
- Social

Materials:

Core Instructional Materials

Supplemental Materials

Texts at Various Levels

Instructional Strategies, Learning Activities, and Levels of Blooms/DOK:

- Conduct Official FFA meeting
- Cooperative Learning
- Delsea One Tutoring
- Drill and Practice
- Field Trips
- Guided Practice
- Individual Projects
- Internet Research
- Partner projects
- Presentations

- Problem Solving
- Recruitment
- Reflective Discussion
- Research Projects
- SAE Supervised Agricultural Experience

Modifications

MLL Modifications:

- Choice of test format (multiple-choice, essay, true-false)
- Continue practicing vocabulary
- Provide study guides prior to tests
- Read directions to the student
- Read test passages aloud (for comprehension assessment)
- Vary test formats

G&T Modifications:

- Alternate assignments/enrichment assignments
- Enrichment projects
- Extension activities
- Higher-level cooperative learning activities
- Pairing direct instruction with coaching to promote self-directed learning
- Provide higher-order questioning and discussion opportunities
- Provide texts at a higher reading level
- Tiered assignments
- Tiered centers

At Risk Modifications

The possible list of modifications/accommodations identified for Special Education students can be utilized for At-Risk students. Teachers should utilize ongoing methods to provide instruction, assess student needs, and utilize modifications specific to the needs of individual students. In addition, the following may be considered:

- Additional time for assignments
- Adjusted assignment timelines

- Agenda book and checklists
- Answers to be dictated
- Assistance in maintaining uncluttered space
- Books on tape
- Concrete examples
- Extra visual and verbal cues and prompts
- Follow a routine/schedule
- Graphic organizers
- Have students restate information
- No penalty for spelling errors or sloppy handwriting
- Peer or scribe note-taking
- Personalized examples
- Preferential seating
- Provision of notes or outlines
- Reduction of distractions
- Review of directions
- Review sessions
- Space for movement or breaks
- Support auditory presentations with visuals
- Teach time management skills
- Use of a study carrel
- Use of mnemonics
- Varied reinforcement procedures
- Work in progress check

IEP & 504 Modifications:

*All teachers of students with special needs must review each student's IEP. Teachers must then select the appropriate modifications and/or accommodations necessary to enable the student to appropriately progress in the general curriculum.

Possible Modifications/Accommodations: (See listed items below):

- Allow for redos/retakes
- Assign fewer problems at one time (e.g., assign only odds or evens)
- Differentiated center-based small group instruction
- Extra time on assessments
- Highlight key directions
- If a manipulative is used during instruction, allow its use on a test
- Opportunities for cooperative partner work
- Provide reteach pages if necessary

- Provide several ways to solve a problem if possible
- Provide visual aids and anchor charts
- Test in alternative site
- Tiered lessons and assignments
- Use of a graphic organizer
- Use of concrete materials and objects (manipulatives)
- Use of word processor

Technology Materials and Standards

TECH.K-12.1.1.a	articulate and set personal learning goals, develop strategies leveraging technology to achieve them and reflect on the learning process itself to improve learning outcomes.
TECH.K-12.1.1.b	build networks and customize their learning environments in ways that support the learning process.
TECH.K-12.1.2.a	cultivate and manage their digital identity and reputation and are aware of the permanence of their actions in the digital world.
TECH.K-12.1.3.b	evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources.
TECH.K-12.1.3.c	curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.
	Students use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions.
TECH.K-12.1.4.a	know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.
TECH.K-12.1.4.b	select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.
TECH.K-12.1.4.c	develop, test and refine prototypes as part of a cyclical design process.
TECH.K-12.1.4.d	exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems.
	Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.
TECH.K-12.1.5.a	formulate problem definitions suited for technology-assisted methods such as data analysis, abstract models and algorithmic thinking in exploring and finding solutions.
TECH.K-12.1.5.d	understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.
TECH.K-12.1.7	Global Collaborator
TECH.K-12.1.7.a	use digital tools to connect with learners from a variety of backgrounds and cultures, engaging with them in ways that broaden mutual understanding and learning.
TECH.K-12.1.7.b	use collaborative technologies to work with others, including peers, experts or community members, to examine issues and problems from multiple viewpoints.
TECH.K-12.1.7.c	contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.
TECH.K-12.1.7.d	explore local and global issues and use collaborative technologies to work with others to investigate solutions.