

Agriculture, Food & Natural Resources
Exploring Agricultural Education (Fifth Grade)
Course Number 01.00150

Overview:

These Georgia Agricultural Education Elementary Standards of Excellence are designed to allow elementary students to explore Agriculture, Food & Natural Resources. Classroom and laboratory activities should include instruction in an organized classroom; collaborative agricultural learning experiences through investigation and inquiry, including laboratory and site-based learning activities; and personal and leadership development opportunities. These elementary agricultural standards are organized under four domains: Agricultural Systems, Foundations of Agriculture, Leadership/Career Readiness and Natural Resource Systems. Each grade level will learn key agricultural topics in these four domains.

In Agricultural Systems, students will investigate and develop an understanding of agricultural systems such as Agricultural Mechanics; Plant Systems; Animal Systems; and/or Food Systems. In Foundations of Agriculture, students will explore and communicate the importance of agriculture and its impact on daily life. In Leadership and Career Readiness, students will develop an understanding of leadership skills and characteristics for career readiness while exploring youth leadership opportunities and careers in agriculture as indicated by the National FFA Organization. In Natural Resource Systems, students will develop and build an understanding of the area of forestry, environmental, wildlife and natural resource systems.

The following is an example of the nomenclature or coding structure for the identification of the standards and elements. Kindergarten example: KLCR1 = Kindergarten Leadership/Career Readiness standard 1. First Grade example: 1FA2 = 1st grade Foundations of Agriculture standard 2. The lowercase bullets under standards further define and clarify the standard and are called elements. For example: 1LCR1a = First Grade Leadership/Career Readiness standard 1, element a.

Employability Skills

Standard 1: Demonstrate employability skills required by business and industry.

1.1 Communicate effectively through writing, speaking, listening, reading, and interpersonal abilities. (HS 1.1)

Person-to-Person Etiquette	Communicating At Work	Listening	Nonverbal Communication	Speaking
Interacting with Co-workers	Improving Communication Skills	Listening Strategies	Communicating Nonverbally	Using Language Carefully
	Effective Oral Communication	Developing a Listening Attitude	Reading Body Language and mixed Messages	One-on-One Conversations
	Effective Written Communication	Show You Are Listening		Small Group Communication
	Effective Nonverbal Skills	Asking Questions		
	Effective Word Use			

1.2 Demonstrate career awareness through the appropriate use of various technologies to learn about opportunities available in the national career clusters. (HS 1.3) (Best suited for grades 3-5)

The Application Process	Interviewing Skills
Providing Information, Accuracy and Double Checking	Preparing for an Interview
Matching Your Talents to a Job	Questions to Ask in an Interview
	Traits Employers are Seeking

1.3 Model work readiness traits required for success in the workplace including integrity, honesty, accountability, punctuality, time management, and respect for diversity. (HS 1.4)

Workplace Ethics	Personal Characteristics	Employer Expectations	Business Etiquette	Communicating at Work
Demonstrating Good Work Ethic	Demonstrating a Good Attitude	Behaviors Employers Expect	Language and Behavior	Handling Anger
Behaving Appropriately	Gaining and Showing Respect	Objectionable Behaviors	Avoiding Gossip	Dealing with Difficult Coworkers
Maintaining Honesty	Demonstrating Responsibility	Building Work Relationships		Dealing with Conflict
Playing Fair	Showing Dependability			
Using Ethical Language	Being Courteous			

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Showing Responsibility	Gaining Coworkers' Trust			
Reducing Harassment	Persevering			
Respecting Diversity	Handling Criticism			
Making Truthfulness a Habit				

1.4 Apply the appropriate skill sets to be productive in a changing, technological, diverse workplace to be able to work independently and apply team work skills. (HS 1.5)

Expected Work Traits	Teamwork	Time Management	Teamwork and Problem Solving (HS 1.2)
Demonstrating Responsibility	Teamwork Skills	Managing Time	Thinking Creatively
Managing Change	Decisions Teams Make	Putting First Things First	Taking Risks
Adopting a New Technology	Team Responsibilities	Overcoming Procrastination	Building Team Communication
	Problems That Affect Teams	Organizing Workspace and Tasks	
	Expressing Yourself on a Team	Staying Organized	
	Giving and Receiving Constructive Criticism		

Agricultural Systems

Agricultural Systems

AFNR-AS: Investigate and develop an understanding of agricultural systems such as Agricultural Mechanics; Plant Systems; Animal Systems; and/or Food Systems.

- 5AS1. Classify and differentiate between different breeds of livestock.
- 5AS2. Compare and contrast instinct and learned animal behaviors.
- 5AS3. Compare and contrast inherited and acquired physical traits in companion animals and livestock.
- 5AS4. Examine the role of organisms in agriculture to soil and animals.
- 5AS5. Connect the role of pollinators in agriculture.
- 5AS6. Classify different types of trees in your area.
- 5AS7. Differentiate and understand parts of plants and how they are utilized in agriculture.
- 5AS8. Investigate how agricultural biotechnology is used in Georgia agriculture.

Sample Tasks:

- *Identify: Primal/retail cuts of meat; Plant parts and functions. Plant parts we eat; Plants and trees specific to your area; Livestock crops associated with your area.*

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- *Summarize the benefits of agricultural biotechnology.*
- *Debate safety considerations with modern agricultural biotechnology.*
- *Apply concepts of modern agricultural production and the relationship to feeding a hungry world.*
- *Investigate a local food system, comparing and contrasting the roles of large commercial farms, small, family farms, food service distributors and aggregator/food hubs.*
- *Connect beneficial insects are related to agriculture, including those that eat common pests.*
- *Compare and contrast uptake of nutrients by plants fed using conventional vs. organic methods.*

Foundations of Agriculture

Foundations of Agriculture

AFNR-FA: Explore and communicate the importance of agriculture and its impact on daily life.

- 5FA1. Construct a model of the supply chain from origination to end product of commodities/ fiber/ natural resources.
- 5FA2. Explore and cite examples of agricultural history, economics, and inventions.
- 5FA3. Assess the role of research in the agriculture industry

Sample Tasks:

- *Design agricultural commodity project.*
- *Recognize historical agricultural figures.*
- *Investigate agricultural economic link.*
- *Conduct farm to plate investigation.*
- *Research how many patents are generated at the Land Grant Universities in our state in the agricultural arena.*
- *Utilize the expertise of the Land Grant University, USDA, and State Department of Agriculture to determine the economic impacts of past and recent natural disasters in the environment on the agricultural industry.*
- *Research what agencies/entities are available in your local communities to connect the agricultural framework at the local level, state level, and national level. Examples: UGA Extension/4-H, Georgia Farm Bureau, Georgia Peanut Commission, Georgia Beef Board, and Local Cattlemen's Association (this list is not exclusive), etc.*

Leadership and Career Readiness

Leadership and Career Readiness

AFNR-LCR: Develop an understanding of leadership skills and characteristics for career readiness while exploring youth leadership opportunities and careers in agriculture as indicated by the National FFA Organization.

- 5LCR1. Identify and apply concepts related to the National FFA mission (premier leadership, personal growth, and career success).
- 5LCR2. Explore careers related to the animal science industry such as livestock producers, veterinarians, small animal trainers, animal science researchers, meat inspectors, livestock buyers, livestock marketing, and animal pharmaceuticals representatives.

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5LCR3. Understand the leadership opportunities and officer roles in youth organizations at the local, area & state levels.

5LCR4. Compare the various school and community organizations that encourage leadership and personal growth.

Sample Tasks:

- *Cite evidence of characteristics of a good leader. Apply concepts of good leadership skills in classroom mock elections, service projects and hands-on learning.*
- *Investigate FFA officer position and participate in mock FFA official ceremonies.*
- *Describe 4-H officer positions and connect opportunities available through 4-H.*
- *Research and describe aspects of a specific agricultural career to include the education and training needed to attain that career.*
- *Invite students from local FFA or 4-H programs to model a successful meeting for students.*
- *Consider various post-secondary educational options for obtaining certifications and degrees for working in the agricultural industry.*
- *Consider participating in UGA 4-H Project Achievement to demonstrate communication and career readiness skills and explore career opportunities and areas of interest.*
- *Write a description for what an officer's role, such as a President, might be.*
- *Establish your own club with a mission statement (purpose).*
- *Role play leadership roles and Agriculture careers.*
- *Complete a research project to compete in school science fair.*
- *Research careers in agriculture, including training requirements, and present findings in a brochure or slide show.*

Natural Resource Systems

Natural Resource Systems

AFNR-NRS: Develop and build an understanding of the area of forestry, environmental and natural resource systems.

5NRS1. Research the impact of agricultural practices on forests, soils and other natural resources.

5NRS2. Describe the benefits and the importance of conservation and recycling of natural resources.

Sample Tasks:

- *Analyze soil samples.*
- *Construct a composting site at school.*
- *Investigate forms of alternative energy available from agriculture.*
- *Critique organic farming*
- *Assess school recycling program.*
- *Explain importance of reforestation*
- *Cite evidence of sustainability.*
- *Research soil micro and macro organism roles.*
- *Examine the impact of agricultural practices on water supply and marine ecosystems.*