

# Introduction to AFNR (2023)

Apply leadership skills and knowledge through the study of the FFA Career and Technical Student Organization (CTSO). [AFNR.HS.20.1](#)

- a** Summarize the three-component model of a comprehensive Agricultural Education Program. [AFNR.HS.20.1.A](#)
- b** Recognize the mission, purpose, and key historical moments in the National FFA Organization. [AFNR.HS.20.1.B](#)
- c** Investigate opportunities available for a member of the FFA. [AFNR.HS.20.1.C](#)
- d** Examine and practice public speaking. [AFNR.HS.20.1.D](#)
- e** Apply the basic principles of Parliamentary Procedure. [AFNR.HS.20.1.E](#)

Apply career readiness principles in an authentic workplace environment. [AFNR.HS.20.2](#)

- a** Summarize the five components of a Foundational Supervised Agricultural Experience (SAE). [AFNR.HS.20.2.A](#)
- b** Investigate the five options for an Immersion SAE. [AFNR.HS.20.2.B](#)
- c** Articulate elements of career plans (e.g., academic, AFNR/CTE coursework, FFA/CTSO participation, immersion SAE) required in an AFNR workplace setting. [AFNR.HS.20.2.C](#)

Examine career options within agriculture, food, and natural resource systems and perform research based on personal interests. [AFNR.HS.20.3](#)

- a** Inventory personal work preferences and interests related to the AFNR Career Field. [AFNR.HS.20.3.A](#)
- b** Identify careers available in multiple AFNR Career Pathways. [AFNR.HS.20.3.B](#)
- c** Determine common qualities of a specific career area (e.g., educational requirements, work environment). [AFNR.HS.20.3.C](#)
- d** Identify necessary steps to prepare for a specific AFNR careers (e.g., coursework, post-secondary, needed skills). [AFNR.HS.20.3.D](#)
- e** Identify opportunities for work placed learning within your community. [AFNR.HS.20.3.E](#)

Evaluate the role of water, air, soil, and habitat in the management of natural resource systems. [AFNR.HS.20.4](#)

- a** Summarize and classify the different natural resources (e.g., water, soil, renewable, non-renewable). [AFNR.HS.20.4.A](#)
- b** Summarize the components that comprise all ecosystems. [AFNR.HS.20.4.B](#)

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- c Compare and categorize biotic and abiotic factors in various habitats.** AFNR.HS.20.4.C

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  - d Identify the importance of water and air quality.** AFNR.HS.20.4.D

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  - e Identify the physical qualities of the soil that determine use for the environmental service system.** AFNR.HS.20.4.E

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  - f Describe the importance of water conservation.** AFNR.HS.20.4.F
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**Differentiate key terms, components, and uses for animals in animal systems.** AFNR.HS.20.5

- a Identify and summarize key terminology used in animal systems (e.g., heifer vs. cow, bull vs. steer, calving, farrowing, bovine, equine).** AFNR.HS.20.5.A

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  - b Define the function of basic external and internal organs of animals.** AFNR.HS.20.5.B

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  - c Differentiate production animals from companion animals.** AFNR.HS.20.5.C

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  - d Classify the major components of production animal systems (e.g., feedlots, cow-calf operations, farrow, finish) and regional distribution.** AFNR.HS.20.5.D

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  - e Categorize uses for and products generated from production animals.** AFNR.HS.20.5.E

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  - f Classify and determine uses for companion animals.** AFNR.HS.20.5.F
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**Summarize knowledge of plant anatomy and the functions of plant structures and processes to activities associated with plant systems.** AFNR.HS.20.6

- a Classify major components of the plant industry.** AFNR.HS.20.6.A

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  - b Classify plants according to life cycles.** AFNR.HS.20.6.B

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  - c Identify the function of plant parts.** AFNR.HS.20.6.C

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  - d Identify basic processes and role of photosynthesis, respiration, and transpiration.** AFNR.HS.20.6.D

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  - e Differentiate between sexual and asexual propagation techniques.** AFNR.HS.20.6.E
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**Synthesize the historical, social, cultural, and potential applications of biotechnology.** AFNR.HS.20.7

- a Summarize biotechnology and the historical impact it has had on agriculture.** AFNR.HS.20.7.A

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  - b Identify current and future applications of biotechnology in agriculture, food, and natural resources.** AFNR.HS.20.7.B

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  - c Identify common methodologies used in biotechnology.** AFNR.HS.20.7.C

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  - d Identify basic cellular structures and genetic terminology.** AFNR.HS.20.7.D

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  - e Summarize the scientific and social implications of modern genetically modified organisms.** AFNR.HS.20.7.E
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**Summarize knowledge of the food products & processing industry.** [AFNR.HS.20.8](#)

- a Evaluate how different foods affect the human body and its physical and cellular processes.** [AFNR.HS.20.8.A](#)
- b Identify food safety and sanitation procedures for handling and processing to assure food quality.** [AFNR.HS.20.8.B](#)
- c Summarize food safety procedures when storing and distributing products to consumers.** [AFNR.HS.20.8.C](#)
- d Explain the producer-to-consumer processes in the food industry.** [AFNR.HS.20.8.D](#)

**Summarize management principles, skills, and practices in agribusiness.** [AFNR.HS.20.9](#)

- a Define major sectors within the agribusiness industry.** [AFNR.HS.20.9.A](#)
- b Identify standard production and agribusiness records and plans.** [AFNR.HS.20.9.B](#)
- c Identify common agribusiness terminology and tools to track and analyze business decisions and transactions.** [AFNR.HS.20.9.C](#)
- d Articulate the role of markets, trade, competition, and price in relation to business sales and market planning.** [AFNR.HS.20.9.D](#)
- e Identify aspects needed to develop and implement an effective record keeping strategy for financial and human resources.** [AFNR.HS.20.9.E](#)

**Create an agricultural project using knowledge of power, structural and technical systems (e.g. procedures, operations, safety, tools, and equipment).** [AFNR.HS.20.10](#)

- a Identify and practice safe laboratory practices and procedures.** [AFNR.HS.20.10.A](#)
- b Select and operate proper tools and equipment related to agricultural processes observing all safety precautions.** [AFNR.HS.20.10.B](#)
- c Develop an agricultural project plan with the required project plan components (e.g., purpose, materials, budget, skills required, timeframe).** [AFNR.HS.20.10.C](#)
- d Assess a project plan to completion.** [AFNR.HS.20.10.D](#)