Nebraska CTE

Introduction to AFNR (Agricultural Power, Structure, and Technology)

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 ommunity. AFNR.HS.20.3.E

Skip to main content

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
	c Compare and categorize biotic and abiotic factors in various habitats. AFNR.HS.20.4.C
	d Identify the importance of water and air quality. AFNR.HS.20.4.D
	e Identify the physical qualities of the soil that determine use for the environmental service system. AFNR.HS.20.4.E
	f Describe the importance of water conservation. AFNR.HS.20.4.F
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
	b Define the function of basic external and internal organs of animals. AFNR.HS.20.5.B
	c Differentiate production animals from companion animals. AFNR.HS.20.5.C
	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
	e Categorize uses for and products generated from production animals. AFNR.HS.20.5.E
	f Classify and determine uses for companion animals. AFNR.HS.20.5.F
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
	b Classify plants according to life cycles. AFNR.HS.20.6.B
	c Identify the function of plant parts. AFNR.HS.20.6.C
	d Identify basic processes and role of photosynthesis, respiration, and transpiration. AFNR.HS.20.6.D
	e Differentiate between sexual and asexual propagation techniques. AFNR.HS.20.6.E
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
	b Identify current and future applications of biotechnology in agriculture, food, and natural resources. AFNR.HS.20.7.B
	c Identify common methodologies used in biotechnology. AFNR.HS.20.7.C

Skip to main content

	d Identify basic cellular structures and genetic terminology. AFNR.HS.20.7.D
	e Summarize the scientific and social implications of modern genetically modified organisms. AFNR.HS.20.7.E
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