Oklahoma CTE

Introduction to Agriscience (2014)

Adopted 2014

Career Opportunities in Agriculture	a.	Explore various career interests/options. - career clusters and pathways - personal career interests and skills CS.02.03.01.A
	a.	Identify the skills required for various careers. - steps to setting career goals - degree requirements, salary and job availability for agricultural careers CS.02.03.03.A
Record Keeping	a.	Describe the meaning, importance and economic importance of entrepreneurship. types of SAEs ABS.01.02.01.A
	a.	Maintain production and agribusiness records. - inventory assets - record keeping transactions - closing records ABS.03.01.01.A
	a.	Identify financial concepts associated with production and profit. - sales and income - expenses - liabilities ABS.04.01.02.A
	a.	Identify accounting information in AFNR business reporting and management. - types of records kept - recording transactions ABS.05.01.01.A
The Food Industry	b.	Discover the different cultures that exist in one's community. food customs of major world populations CS.02.02.01.B
	a.	Discuss the history and describe and explain the components (e.g., processing, distribution, byproducts) of the food products and processing industry. FPP.01.01.01.A
	a.	Explain the purposes of organizations that are part of or regulate the food products and processing industry. - quality assurance - government regulations FPP.01.02.01.A
	a.	Identify and describe foods derived from meat, egg, poultry, fish and dairy products. FPP.04.02.01.A
		Identify and describe products derived from fruits and vegetables. FPP.04.02.02.A

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	a. Identify and describe products derived from grains, legumes and oilseeds. FPP.04.02.02.A
Plant and Soil Science	**a.** Explain the process of soil formation through weathering. ESS.03.02.01.A
	a. Explain how the physical qualities of the soil influence the infiltration and percolation of water. - sand, silt, clay - textural triangle ESS.03.02.03.A
	a. Explain systems used to classify plants. - taxonomy - life cycles - structures PS.01.01.01.A
	a. Describe the morphological characteristics used to identify agricultural plants. - structures - monocot and dicot PS.01.01.02.A
	a. Explain the basic process of photosynthesis and its importance to life on Earth. PS.01.03.01.A
	a. Explain cellular respiration and its importance to plant life. PS.01.03.02.A
	a. Identify the major components of growing media and describe how growing media support plant growth. PS.02.02.01.A
The Beef Cattle Industry	**a.** Identify the origin, significance, distribution and domestication of animal species. AS.01.01.01.A
	a. Define major components of the animal industry. - specie breeds and characteristics - economic importance AS.01.01.02.A
	b. Outline the development of the animal industry and the resulting products, services and careers. - phases of production - animals for work and recreation - consumer products AS.01.01.02.B
	a. Identify major animal species by common and scientific names. AS.02.01.02.A
	a. Describe the functions of the animal body systems and system components. anatomy/parts AS.02.02.06.A
The Swine Industry	**a.** Identify the origin, significance, distribution and domestication of animal species. AS.01.01.01.A
	a. Define major components of the animal industry. - specie breeds and characteristics - economic importance AS.01.01.02.A
	b. Outline the development of the animal industry and the resulting products, services and careers. - phases of production - consumer products AS.01.01.02.B

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	a. Identify major animal species by common and scientific names. AS.02.01.02.A
	a. Describe the functions of the animal body systems and system components. anatomy/parts AS.02.02.06.A
	a. Describe how animal identification systems can track an animal's location, nutrition requirements, production progress and changes in health. swine universal ear notching system AS.06.02.02.A
The Sheep Industry	**a.** Identify the origin, significance, distribution and domestication of animal species. AS.01.01.01.A
	a. Define major components of the animal industry. - specie breeds and characteristics - economic importance AS.01.01.02.A
	b. Outline the development of the animal industry and the resulting products, services and careers. - phases of production - consumer products AS.01.01.02.B
	a. Identify major animal species by common and scientific names. AS.02.01.02.A
	a. Describe the functions of the animal body systems and system components. anatomy/parts AS.02.02.06.A
The Dairy Cattle Industry	**a.** Identify the origin, significance, distribution and domestication of animal species. AS.01.01.01.A
	a. Define major components of the animal industry. - specie breeds and characteristics - economic importance AS.01.01.02.A
	b. Outline the development of the animal industry and the resulting products, services and careers. - phases of production - consumer products AS.01.01.02.B
	a. Identify major animal species by common and scientific names. AS.02.01.02.A
	a. Describe the functions of the animal body systems and system components. - anatomy/parts - milk production AS.02.02.06.A
	a. Describe how animal identification systems can track an animal's location, nutrition requirements, production progress and changes in health. advances in the dairy industry AS.06.02.02.A
The Horse Industry	**a.** Identify the origin, significance, distribution and domestication of animal species. AS.01.01.01.A
	a. Define major components of the animal industry. - specie breeds and characteristics - economic importance AS.01.01.02.A

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	b. Outline the development of the animal industry and the resulting products, services and careers. - phases of production - animals for work and recreation AS.01.01.02.B
	a. Identify major animal species by common and scientific names. AS.02.01.02.A
	a. Describe the functions of the animal body systems and system components. anatomy/parts AS.02.02.06.A
The Goat Industry	**a.** Identify the origin, significance, distribution and domestication of animal species. AS.01.01.01.A
	a. Define major components of the animal industry. - specie breeds and characteristics - economic importance AS.01.01.02.A
	b. Outline the development of the animal industry and the resulting products, services and careers. - phases of production - consumer products AS.01.01.02.B
	a. Identify major animal species by common and scientific names. AS.02.01.02.A
	a. Describe the functions of the animal body systems and system components. anatomy/parts AS.02.02.06.A
The Poultry Industry	**a.** Identify the origin, significance, distribution and domestication of animal species. AS.01.01.01.A
	a. Define major components of the animal industry. - specie breeds and characteristics - economic importance AS.01.01.02.A
	b. Outline the development of the animal industry and the resulting products, services and careers. - phases of production - consumer products AS.01.01.02.B
	a. Identify major animal species by common and scientific names. AS.02.01.02.A
	a. Describe the functions of the animal body systems and system components. - anatomy/parts - egg development and incubation AS.02.02.06.A
Small Animal Care	**a.** Identify the origin, significance, distribution and domestication of animal species. AS.01.01.01.A
	a. Define major components of the animal industry. - specie breeds and characteristics - economic importance AS.01.01.02.A

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	b. Outline the development of the animal industry and the resulting products, services and careers. types and uses of small animals AS.01.01.02.B
	a. Identify major animal species by common and scientific names. AS.02.01.02.A
Agricultural Mechanics Safety	**a.** Use proper safety practices/personal protective equipment. CS.06.02.01.A
	a. Demonstrate the importance of safety, health, and environmental practices in the workplace. maintaining shop safety CS.06.03.01.A
	a. Handle chemicals and equipment in a safe and appropriate manner. - common hazards - welding safety CS.07.04.02.A
Arc Welding and Oxy-Gas Cutting	**a.** Identify standard tools, equipment, and safety procedures related to a specific task. - welding tools and equipment - cutting tools and equipment - fire classes and extinguishers CS.08.01.01.A
	a. Follow operating instructions related to specific tools and equipment needed to complete a task. operating a welder and cutting torch CS.08.01.02.A
	a. Use the appropriate procedures for the use and operation of specific tools and equipment. operating a welder and cutting torch CS.08.02.01.A
	b. Distinguish welding processes, positions and materials preparation. - welding methods and equipment - striking an arc - running a bead - cutting equipment, gasses and process PST.04.04.07.B