Florida CTE

Agriculture, Food, and Natural Resources: Exploration of Agriscience

Explain the evolution of agriculture. The student will be able to: 1	**01.01** Define agriculture. 1.01
	01.02 Identify and research opportunities in agriculture and its related fields through a Foundational SAE. 1.02
	01.03 Explain how commodities have diversified in Florida. 1.03
Apply knowledge and skills in plant sciences. The student will be able to: 2	**02.01** Produce an agricultural plant. 2.01
	02.02 Discuss the technology involved in the development of improved crops. 2.02
	02.03 Identify agribusinesses that provide supplies and services to plant science industries in the state.. 2.03
	02.04 Identify the recommended uses and safety precautions from a pesticide label. 2.04
	02.05 Discuss basic landscape design. 2.05
	02.06 Identify pests, pathogens, parasites, and predators of horticultural and agronomic crops. 2.06
	02.07 Describe the major components of soil. 2.07
	02.08 Demonstrate how to read a fertilizer label 2.08
	02.09 Describe various forms of fertilizer and proper application method. 2.09
Apply knowledge and skills in Forestry. The student will be able to: 3	**03.01** Identify the major forest regions of the United States and Florida. 3.01
	03.02 Describe the importance of forests and forest products. 3.02
	03.03 Describe how trees grow, reproduce, and components of forest health. 3.02
	04 Describe tools and techniques common to the forest industry. 3.04

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	03.05 Identify pests, pathogens, parasites, and predators of forests. 3.05
Apply knowledge and skills in animal sciences. The student will be able to: 4	**04.01** Describe the differences between animal welfare and animal rights. 4.01
	04.02 Discuss the technology involved in the development of improved animal products. 4.02
	04.03 Identify important breeds of livestock. 4.03
	04.04 Identify agribusinesses that provide supplies and services to animal science industries in the state. 4.04
	04.05 Describe the uses of livestock and their products. 4.05
Demonstrate knowledge and skills in food science. The student will be able to: 5	**05.01** Demonstrate the proper handling and storage of food products from farm to plate. 5.01
	05.02 Describe and demonstrate at least one method of food preservation. 5.02
	05.03 Conduct a food taste test. 5.03
	05.04 Produce and market a food product. 5.04
	05.05 Read, interpret, and develop a food label. 5.05
	05.06 Describe the components of a balance diet. 5.06
	05.07 Identify and compare USDA standards and grades for agricultural products. 5.07
Apply knowledge and skills in biotechnology. The student will be able to: 6	**06.01** Define biotechnology. 6.01
	06.02 Discuss current and future uses of genetic engineering. 6.02
	06.03 Identify issues associated with biotechnology. 6.03
	06.04 Explain the history of genetic engineering and biotechnology in agriculture. 6.04
Apply knowledge and skills in agricultural processing and marketing. The student will be able to: 7	**07.01** Identify processing and packaging techniques used in agriculture. 7.01
	07.02 Discuss the difference in marketing strategies between perishable and nonperishable commodities. 7.02
	07.03 Describe how processing, packaging, and marketing affects the price of an item. 7.03
	07.04 Recognize misleading advertising. 7.04

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	07.05 Describe how competition benefits the consumer. 7.05
Apply knowledge and skills in natural resources. The student will be able to: 8	**08.0** Identify methods or practices of the conservation natural resources. 8.01
	08.0 Demonstrate a method or practice of conservation. 8.02
	08.03 Identify major ecosystems in Florida. 8.03
	08.04 Discuss the importance of the ecosystems to agriculture, society and each other. 8.04
	08.05 Define Best Management Practices (BMPs) and explain their benefits to agriculture. 8.05
Apply leadership and communication skills. The student will be able to: 9	**09.01** Discuss the establishment and history of the FFA organization. 9.01
	09.02 Identify the characteristics and responsibilities of organizational leaders. 9.02
	09.03 Identify parliamentary procedure skills during a business meeting. 9.03
	09.04 Demonstrate effective communication skills through delivery of a speech or conducting a demonstration. 9.04
	09.05 Identify communication skills necessary for effective leadership. 9.05
	09.06 Identify state and community organizations associated with agricultural promotion. 9.06
Integrate the use of science, mathematics, reading, geography, history, writing, and communication in agriscience and technology. The student will be able to: 10	**10.01** Apply basic mathematics operations to solve agricultural problems. 10.01
	10.02 Correctly use measuring devices and utilize measurements to solve agricultural problems. 10.02
	10.0 Apply the scientific method to solve an agricultural problem. 10.03
	10.04 Prepare written and/or oral materials using correct English grammar. 10.04
	10.05 Identify the main idea in oral presentations and/or written materials. 10.05
	10.06 Locate, organize, and interpret information from a variety of agricultural sources. 10.06