Florida CTE

Agriculture, Food and Natural Resources: Animal Science and Services 2: Grades 9-12

Describe animal science and the role of animals in society. The student will be able to: 1.0	**1** Describe animal science and the role of animals in society. 1.1 **2** Analyze perceptions of public opinion of animal related issues. 1.2 **3** Identify the origin, significance, distribution, and domestication of animal species 1.3 **4** Describe animal adaptations developed in response to environment and domestication. 1.4 **5** Predict adaptations of animals to production practices and environments. 1.5 **6** Describe the predominant sectors of the animal science industry. 1.6 **7** Outline the development of the animal industry and the resulting products, services, and careers. 1.7 **8** Predict trends and implications of future development of the animal systems industry. 1.8
Classify animals according to hierarchical taxonomy and agricultural use. The student will be able to: 2.0	**1** Analyze the visual characteristics of an animal or animal product; select taxonomical classification terminology when referring to companion and production animals. 2.1 **2** Appraise and evaluate the economic value of animals for various applications in the agriculture industry. 2.2
Evaluate and implement the steps and requirements to pursue a career opportunity in the animal industry. The student will be able to:	**1** Locate and obtain information on animal-industry careers and career opportunities. 3.1 **2** Examine the educational training and experiential requirements to pursue a career in the animal industry 3.2 **3** Examine professional organizations and commodity groups in the animal industry and supporting organizations. 3.3

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	4 **Demonstrate those qualities, attributes, and skills necessary to succeed in, or further prepare for, a chosen career while effectively contributing to society.** 3.4
	5 **Prepare and maintain Supervised Agricultural Experience (SAE) records.** 3.5
Describe animal and human first aid and laboratory safety. The student will be able to: 4.0	1 **Practice safe procedures when working with animal-related equipment and in laboratory settings** 4.1
	2 **Understand animal behaviors as they relate to practicing safety precautions around animal restraint.** 4.2
	3 **Discuss the impact of unsafe procedures.** 4.3
	4 **Define zoonosis and identify selected zoonotic diseases.** 4.4
	5 **Discuss OHSA as it relates to the animal industry.** 4.5
	6 **Explain how to use a first aid kit and its key components.** 4.6
	7 **Recognize allergic reactions and proper responses.** 4.7
	8 **Describe proper use of eye wash solution.** 4.8
	9 **Explain how to control minor hemorrhage and/or trauma.** 4.9
	10 **Explain emergency procedures.** 4.10
Recognize normal and abnormal animal behaviors. The student will be able to: 5.0	1 **Distinguish between instinctive and learned behaviors.** 5.1
	2 **Recognize normal and abnormal behavioral characteristics of animals through observations.** 5.2
	3 **Identify behavioral problems.** 5.3
Apply principles of comparative anatomy and physiology to uses within various animal systems. The student will be able to: 6.0	1 **Identify parts, major organ, and functions, of the following systems of animals using correct terminology:** 6.1 a Identify the general function of the skeletal system and the major bones of the axial and appendicular skeleton. 6.1.A b Identify the general function of the nervous system and the major organs. 6.1.B c Identify the general function of the muscular system and major groups of muscles. 6.1.C d Identify the general function of the digestive system; differentiate between ruminants and nonruminants (monogastric and hind gut fermentors); and the major organs. 6.1.D Identify the general function of the respiratory system and the major organs. 6.1.E Identify the general function of the urinary system and the major organs. 6.1.F

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	g Identify the general function of the reproductive system and both male and female organs. 6.1.G
	2 Compare and contrast animal cells, tissues, organs, body systems types and functions among animal species. 6.2
	3 Apply knowledge of anatomical and physiological characteristics of animals to make production and management decisions. 6.3
	4 Correlate the functions of animal cell structures to animal growth, development, health, and reproduction. 6.4
Demonstrate safe animal handling and management techniques. The student will be able to: 7.0	**1 Devise, implement and evaluate safety procedures and plans for working with animals by species using information based on animal behavior and responses.** 7.1
	2 Outline safety procedures for working with animals by species. 7.2
	3 Interpret animal behaviors and execute protocols for safe handling of animals. 7.3
	4 Analyze and document animal husbandry practices and their impact on animal welfare. 7.4
	5 Design programs that assure the proper care and use of animals and prevent abuse or mistreatment. 7.5
	6 Implement quality-assurance programs and procedures for animal production. 7.6
Analyze the community's responsibility in options for caring for unwanted/neglected livestock. The student will be able to: 8.0	**1 Differentiate between animal control agencies and humane societies.** 8.1
	2 Explain the laws governing animal care and use. 8.2
Evaluate the importance of the animal science industry to understand the impact on global economy. The student will be able to: 9.0	**1 Assess the impact of the animal science industry upon the US gross national product and the total global economy.** 9.1
	2 Investigate local, state, and national regulatory laws, industry regulations, and legislation for animal agriculture businesses. 9.2
	3 Identify and describe the primary government agencies involved with animal agriculture 9.3
	Research new and emerging technologies in animal agriculture and their impact on the economy. 9.4

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5 **Recognize the value of the food and agribusiness industry.** 9.5