

## Expectations and Outcomes

Grade Level/Course: 9-12

Content Area: Agriculture

Unit Title	Guarantees
Unit 1 - Class-SAE-FFA:	<p>Develop efficient procedures to produce consistently high quality animals, well suited for their intended purposes.</p> <p>Design programs that assure the welfare of animals and prevent abuse or mistreatment.</p> <p>Interpret animal behaviors and execute protocols for safe handling of animals.</p> <p>Select equipment and implement animal handling procedures and improvements to enhance production efficiency.</p> <p>Implement measures to reduce the impact of animal agriculture on the environment.</p> <p>Describe the effects of environmental conditions on animal populations and performance.</p> <p>Establish and maintain favorable environmental conditions for animal growth and performance.</p> <p>Develop an action plan to set and achieve realistic goals.</p> <p>Participate in co-curricular and community activities to enhance the school experience.</p> <p>Defend a position or decision using relevant, valid and timely data and information.</p> <p>Create media products using common principles of graphic design.</p>
Unit 2 - Animal Genetics:	<p>Detail the processes and application of meiosis and mitosis in animal growth, development, health and reproduction.</p> <p>Describe the molecular makeup of animal cells and organs and their importance in animal growth, health, production, reproduction and management.</p> <p>Explain the impact of animal body systems on health, growth and reproduction.</p> <p>Compare and contrast desirable anatomical and physiological characteristics of animals within and between species.</p> <p>Assess an animal to determine if it has reached its optimal performance level based on anatomical and physiological characteristics.</p> <p>Evaluate and select animals to maximize performance based on anatomical and physiological characteristics that affect health, growth and reproduction.</p> <p>Develop efficient procedures to produce consistently high quality animals, well suited for their intended purposes.</p>

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	<p>Select breeding animals based on characteristics of the reproductive organs</p> <p>Treat or cull animals with reproductive problems.</p> <p>Explain the advantages of using genetically superior animals in the production of animals and animal products.</p> <p>Compare and contrast quantitative breeding value differences between genetically superior animals and animals of average genetic value.</p> <p>Select animals based on quantitative breeding values for specific characteristics.</p>
Unit 3 - Animal Reproduction:	<p>Detail the processes and application of meiosis and mitosis in animal growth, development, health and reproduction.</p> <p>Explain the relationship, importance and uses of animal tissues to growth, performance and health in the agriculture industry.</p> <p>Compare and contrast organ types, functions and body systems adaptations among and between animal species.</p> <p>Describe the molecular makeup of animal cells and organs and their importance in animal growth, health, production, reproduction and management.</p> <p>Explain the impact of animal body systems on health, growth and reproduction.</p> <p>Compare and contrast desirable anatomical and physiological characteristics of animals within and between species.</p> <p>Develop efficient procedures to produce consistently high quality animals, well suited for their intended purposes.</p> <p>Diagnose illnesses and disorders of animals based on symptoms and problems caused by diseases, parasites and physiological disorders.</p> <p>Evaluate preventive measures for controlling and limiting the spread of diseases, parasites and disorders among animals.</p> <p>Perform surgical and nonsurgical veterinary treatments and procedures in animal health care.</p> <p>Describe the functions of major organs in the male and female reproductive systems. Evaluate reproductive problems that occur in animals.</p> <p>Explain the advantages of using genetically superior animals in the production of animals and animal products.</p> <p>Select a breeding system based on the principles of genetics and reproductive/economic efficiencies.</p> <p>Explain the processes of natural and artificial breeding methods.</p> <p>Explain the processes of major reproductive management practices, including estrous</p>

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	<p>synchronization, superovulation, flushing and embryo transfer.            Explain and demonstrate the materials, methods and processes of artificial insemination.</p>
<p>Unit 4 - Sheep Management:</p>	<p>Evaluate and describe characteristics of animals that developed in response to the animals' environment and led to their domestication.            Outline the development of the animal industry and the resulting products, services and careers.            Predict adaptations of animals to production practices and environments.            Predict trends and implications of future development of the animal systems industry.            Appraise and evaluate the economic value of animals for various applications in the agriculture industry.            Explain how the components and systems of animal anatomy and physiology relate to the production and use of animals.            Compare and contrast desirable anatomical and physiological characteristics of animals within and between species.            Develop efficient procedures to produce consistently high quality animals, well suited for their intended purposes.            Diagnose illnesses and disorders of animals based on symptoms and problems caused by diseases, parasites and physiological disorders.            Evaluate preventive measures for controlling and limiting the spread of diseases, parasites and disorders among animals.            Implement zoonotic disease prevention methods and procedures for the safe handling and treatment of animals.            Discuss procedures at the local, state and national levels to ensure biosecurity of the animal industry.            Select appropriate feedstuffs for animals based on factors such as economics, digestive system and nutritional needs.            Explain the advantages of using genetically superior animals in the production of animals and animal products.            Outline safety procedures for working with animals by species.            Explain how modern equipment and handling facilities enhance the safe and economic production of animals.            Outline methods of reducing the effects of animal agriculture on the environment.            Describe the effects of environmental conditions on animal populations and performance.</p>
<p>Unit 5 - Dairy Management:</p>	<p>Evaluate and describe characteristics of animals that developed in response to the animals' environment and led to their domestication.</p>

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	<p>Outline the development of the animal industry and the resulting products, services and careers.</p> <p>Predict adaptations of animals to production practices and environments.</p> <p>Predict trends and implications of future development of the animal systems industry.</p> <p>Appraise and evaluate the economic value of animals for various applications in the agriculture industry.</p> <p>Explain how the components and systems of animal anatomy and physiology relate to the production and use of animals.</p> <p>Compare and contrast desirable anatomical and physiological characteristics of animals within and between species.</p> <p>Develop efficient procedures to produce consistently high quality animals, well suited for their intended purposes.</p> <p>Diagnose illnesses and disorders of animals based on symptoms and problems caused by diseases, parasites and physiological disorders.</p> <p>Evaluate preventive measures for controlling and limiting the spread of diseases, parasites and disorders among animals.</p> <p>Implement zoonotic disease prevention methods and procedures for the safe handling and treatment of animals.</p> <p>Discuss procedures at the local, state and national levels to ensure biosecurity of the animal industry.</p> <p>Select appropriate feedstuffs for animals based on factors such as economics, digestive system and nutritional needs.</p> <p>Explain the advantages of using genetically superior animals in the production of animals and animal products.</p> <p>Outline safety procedures for working with animals by species.</p> <p>Discuss consumer concerns with animal production practices relative to human health.</p> <p>Explain how modern equipment and handling facilities enhance the safe and economic production of animals.</p> <p>Outline methods of reducing the effects of animal agriculture on the environment.</p> <p>Describe the effects of environmental conditions on animal populations and performance.</p>
Unit 6 - Beef & Swine Management:	<p>Evaluate and describe characteristics of animals that developed in response to the animals' environment and led to their domestication.</p> <p>Outline the development of the animal industry and the resulting products, services and careers.</p> <p>Predict adaptations of animals to production practices and environments.</p> <p>Predict trends and implications of future development of the animal systems industry.</p>

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	<p>Appraise and evaluate the economic value of animals for various applications in the agriculture industry.</p> <p>Explain how the components and systems of animal anatomy and physiology relate to the production and use of animals.</p> <p>Compare and contrast desirable anatomical and physiological characteristics of animals within and between species.</p> <p>Develop efficient procedures to produce consistently high quality animals, well suited for their intended purposes.</p> <p>AS3.a.10.h: Diagnose illnesses and disorders of animals based on symptoms and problems caused by diseases, parasites and physiological disorders.</p> <p>Evaluate preventive measures for controlling and limiting the spread of diseases, parasites and disorders among animals.</p> <p>Implement zoonotic disease prevention methods and procedures for the safe handling and treatment of animals.</p> <p>Discuss procedures at the local, state and national levels to ensure biosecurity of the animal industry.</p> <p>Select appropriate feedstuffs for animals based on factors such as economics, digestive system and nutritional needs.</p> <p>Explain the advantages of using genetically superior animals in the production of animals and animal products.</p> <p>Outline safety procedures for working with animals by species.</p> <p>Explain how modern equipment and handling facilities enhance the safe and economic production of animals.</p> <p>Outline methods of reducing the effects of animal agriculture on the environment.</p> <p>Describe the effects of environmental conditions on animal populations and performance.</p>
Unit 7 - Horse Management:	<p>Evaluate and describe characteristics of animals that developed in response to the animals' environment and led to their domestication.</p> <p>Outline the development of the animal industry and the resulting products, services and careers.</p> <p>Predict adaptations of animals to production practices and environments.</p> <p>Predict trends and implications of future development of the animal systems industry.</p> <p>Appraise and evaluate the economic value of animals for various applications in the agriculture industry.</p> <p>Explain how the components and systems of animal anatomy and physiology relate to the production and use of animals.</p>

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	<p>Compare and contrast desirable anatomical and physiological characteristics of animals within and between species.</p> <p>Develop efficient procedures to produce consistently high quality animals, well suited for their intended purposes.</p> <p>Diagnose illnesses and disorders of animals based on symptoms and problems caused by diseases, parasites and physiological disorders.</p> <p>Evaluate preventive measures for controlling and limiting the spread of diseases, parasites and disorders among animals.</p> <p>Discuss procedures at the local, state and national levels to ensure biosecurity of the animal industry.</p> <p>Select appropriate feedstuffs for animals based on factors such as economics, digestive system and nutritional needs.: Outline safety procedures for working with animals by species.</p> <p>Explain how modern equipment and handling facilities enhance the safe and economic production of animals.</p> <p>Outline methods of reducing the effects of animal agriculture on the environment.</p> <p>Describe the effects of environmental conditions on animal populations and performance.</p>