

Bixby Public Schools

| Course | Animal Science | Grade: 10,11,12 |
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| | Weeks 1 – 6 | |
| Content (Pass and/or Common Core Objective) | <p>Chapter 1 Basic animal management Goal: to learn basic understanding of animal management and health.</p> <p>Chapter 2 Basic animal reproduction Goal: To learn the importance of animal reproduction and the animal anatomy.</p> <p>Chapter 3 Basic animal science Goal: To learn the basic understanding of animal science.</p> <p>Chapter 4 Basic animal care Goal: To learn how to properly care for animals.</p> <p>Chapter 5 Basic animal nutrition Goal: To learn the major factors associated with livestock nutrition.</p> <p>Chapter 6 Conception to consumer Goal: to learn the processes involved in commercial beef production.</p> | |
| Process Skills (if applicable) | <ul style="list-style-type: none"> A.) Students will learn proper procedures for housing animals. B.) Students will learn the importance of nutrition for animals C.) Students will learn efficient ways to keep livestock healthy. D.) Students will learn to describe the structures and function of the female and male reproductive anatomy. E.) Students will learn to understand the reproductive process, including estrus cycle, ovulation, gestation and parturition. F.) Students will learn clinical signs of diseases. G.) Students will learn how to treat animals H.) Students will learn how to determine drug dosages for animals. I.) Students will learn how to feed animals and why we feed certain ingredients. J.) Students will learn selection traits for cow calf operation. K.) Students will assess market trends and different markets. | |
| Academic Vocabulary | Housing, Nutrition, anatomy, estrus cycle, ovulation, gestation, parturition, clinical signs, diseases, dosage, Milliliter, CC"s, Pearson Square, mineral, dry matter, traits, market trends. | |
| Assessment | Teacher observation, group & individual projects, chapter tests, reinforcement activities | |
| Resources | CEV Multimedia (www.cevmultimedia.com) | |

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| Course | Animal Science | Grade: 10,11,12 |
| | Weeks 7- 12 | |
| Content (Pass and/or Common Core Objective) | <p>Chapter 7 Video research field trip to feedlot Video Field trip to Dairy farm Video field trip to Swine production Video field trip to U.S. Meat Animal Research Center</p> <p>Goal: To learn common practices in each animal production operation.</p> <p>Chapter 8 Fundamentals of animal micro genetics Goal: To learn the basics of cell division and the composition of genes.</p> <p>Chapter 9 Fundamentals of livestock Parturition Goal: To learn the parturition process of farm animals.</p> <p>Chapter 10 Introduction to Biotechnology Goal: To learn about the capabilities and potential of Biotechnology.</p> <p>Chapter 11 Introduction to cloning Goal: To learn a basic understanding of cloning.</p> | |
| Process Skills (if applicable) | <p>A.) Students will learn cattle handling and equipment used. B.) Students will study basic components and ingredients in cattle rations. C.) Students will study the operations of an automated, computer-controlled feed mill and feedlot. D.) Students will assess housing practices for livestock. E.) Students will learn stages of body and cell division. F.) Students will learn how the sex of an embryo is determined. G.) Students will learn basic structure and composition of genes. H.) Students will learn the basic principals of biology. I.) Students will understand applications of biotechnology in animals and medicine. J.) Students will understand the basics of cloning. K.) Students will learn the history behind cloning. L.) Students should identify the pros and cons of cloning.</p> | |
| Academic Vocabulary | Chute, Corral, Syringe, Dehorners, Crimpers, Mitosis, Meiosis, Cell division, Genes, DNA, Cloning. | |
| Assessment | Teacher observation, group & individual projects, chapter tests, reinforcement activities | |
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| Course | Animal Science | Grade: 10,11,12 |
| | Weeks 13 – 18 | |
| Content (Pass and/or Common Core Objective) | <p>Chapter 12 Equine diseases Goal: To learn the diseases affecting horses and the proper care for those diseases.</p> <p>Chapter 13 Equine equipment and facilities</p> | |

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| | <p>Goal: Learn housing and care for equine. Chapter 14 Video Field trip Thoroughbred farm Goal: Learn about how an equine production farm operates. Chapter 15 Horse judging and selection Goal: Learn how to select a quality horse. Chapter 16 Equine selection Goal: Learn how to select and determine quality livestock for purchase. Chapter 17 Reasons and terminology associated with judging Goal: learn how to explain with proper equine technology the reason for a selection. Chapter 18 Equine anatomy Goal: Learn equine anatomy for proper equine selection.</p> | |
| Process Skills (if applicable) | <p>A.) Students will learn equine diseases and their causes. B.) students will learn the clinical signs and treatments regarding equine diseases. C.) Students will learn proper ways to keep horses safe and disease free. D.) Students will learn fundamentals in selecting a site. E.) Students will learn about careers in the equine industry. F.) Students will learn safety procedures for equine protection. G.) Students will examine the mare and foal complex. H.) Students will gain knowledge in judging all halter and performance classes if horses. I.) Students will apply public speaking skills in giving reasons why they placed the classes. J. Students will learn terminology associated with equine selection. K.) students will learn the equine anatomy and where the terminology applies.</p> | |
| Academic Vocabulary | Diseases, Clinical signs, Facilities, Selection, Terminology. | |
| Assessment | Teacher observation, group & individual projects, chapter tests, reinforcement activities | |
| Resources | CEV Multimedia (www.cevmultimedia.com) | |
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| Course | Animal Science | Grade: |
| | Weeks 19 – 24 | 10,11,12 |
| Content (Pass and/or Common Core Objective) | <p>Chapter 1 Basic Poultry Reproduction Goal: To learn the various aspects of poultry production. Chapter 2 Basic Swine Reproduction Goal: To learn various aspects of swine production. Chapter 3 Beef Reproduction Goal: To learn the efficiency demands on the beef industry through selective reproduction. Chapter 4 Livestock Breeding Systems Goal: To learn the steps in a successful breeding program. Chapter 5 Animal Genetics Goal: To examine the importance of animal genetics.</p> | |

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| | <p>Chapter 6 Basic Reproduction of animals</p> <p>Goal: To discover the anatomy and philology of the animal reproductive system.</p> |
| Process Skills (if applicable) | <ul style="list-style-type: none"> A.) Student will be able to describe the structure and development of the egg. B.) Students will be able to describe and list the different anatomy of the male and female poultry. C.) Students will understand basic swine reproduction. D.) Students will become familiar with the common terminology used in the swine industry. E.) Students will become aware of common swine diseases. F.) Students will be able to select beef breeding stock. G.) Students will learn the beef anatomy and physiology. H.) Students will learn the advantages to artificial insemination and embryo transfer in beef cattle. I.) Students will be able to recognize and use relevant terminology associated with the beef industry. J.) Students will learn to set goals for a successful breeding program. K.) Students will learn about choosing and weighing traits in a breeding program. L.) Students will learn how to determine measurements in a breeding program. M.) Students will discover genetics and DNA. N.) Students will learn the difference between dominant and recessive genes. O.) Students will examine the Punnet square. P.) Students will analyze the different hormones that affect the reproductive system. |
| Academic Vocabulary | Ovary, Hormone, Punnet square, DNA, Genetics, Embryo Transfer, Artificial insemination, Traits, Phenotypic traits, Genotypic Traits. |
| Assessment | Teacher observation, group & individual projects, chapter tests, reinforcement activities |
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| Course | • A | Grade: 10,11,12 |
| | Weeks 25 – 30 | |
| Content (Pass and/or Common Core Objective) | <p>Chapter 1 Basic Animal and Human Body Systems Goal: To learn the basic components of human and animal anatomy and physiology.</p> <p>Chapter 2 Basic Livestock Surgical Procedures Goal: To learn and perform basic surgical applications of livestock.</p> <p>Chapter 3 Cattle abnormalities Goal: To learn the abnormalities in cattle which affect their marketability or use as breeding stock.</p> <p>Chapter 4 Common animal diseases Goal: To learn a basic understanding if animal diseases.</p> <p>Chapter 5 Common Canine Diseases Goal: To learn diseases commonly affecting Canines.</p> <p>Chapter 6 Digestive system of livestock Goal: To learn and understand the basic anatomy of the livestock digestive system.</p> <p>Chapter 7 Diseases Mad Cow and Foot and mouth Goal: To learn the cause and effects of Mad Cow and Foot and Mouth disease.</p> | |
| Process Skills (if applicable) | <p>A.) The student will develop a basic understanding of how the anatomy and physiology of these systems support an organisms' life.</p> <p>B.) The student will develop a basic understanding of how these systems in humans compare with the systems in other complex animals.</p> <p>C.) The student will understand basic techniques associated with simple surgical procedures.</p> <p>D.) The student will learn proper care of livestock prior to, during and after simple surgical procedures.</p> <p>E.) The student will identify the uses of live visual inspection.</p> <p>F.) The student will determine the characteristics of normal cattle.</p> <p>G.) The student will identify skin and hair, skeletal structure, reproduction and digestion abnormalities in cattle.</p> <p>H.) The student will identify major causes of various diseases.</p> <p>I.) The student will investigate symptoms, prevention and treatment.</p> <p>J.) The student will learn to diagnose common animal diseases.</p> <p>K.) The student will be able to define the major categories of canine diseases.</p> <p>L.) The student will be able to identify the symptoms and causes of canine diseases.</p> <p>M.) The student will be able to identify the proper prevention and treatment for canine diseases.</p> <p>N.) The student will understand the different types of digestive systems.</p> <p>O.) The student will identify basic structures associated with digestive systems</p> | |

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| | <p>P.) The student will be able to identify possible origins and treatments for the disease</p> <p>Q.) The student will be able to assess the economic impact</p> <p>R.)The student will be able to explain the risks to human health</p> |
| Academic Vocabulary | Organism, Surgical, Economic impact, Prevention, Treatment, Immunizations, Injection sites (IV, IM,SubQ), TPR. |
| Assessment | Teacher observation, group & individual projects, chapter tests, reinforcement activities |
| Resources | CEV Multimedia (www.cevmultimedia.com) |

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| Course | Animal Science | Grade: 10,11,12 |
| | Weeks 31 – 36 | |
| Content (Pass and/or Common Core Objective) | Chapter 8 Immunizations: Injections and techniques Chapter 9 Livestock and carcass abnormalities Chapter 10 Parasites of livestock Chapter 11 Ruminant digestive system Chapter 12 Sheep abnormalities Chapter 13 Swine abnormalities | |
| Process Skills (if applicable) | The student will learn why injections are essential for healthy animals. The student will learn the different sizes of syringes and needles. The student will explore injection sites on the animal. The student will become familiar with medicinal applications The student will identify various congenital abnormalities. The student will identify various hereditary abnormalities. The student will learn the different stages, types and classes of parasites. The student will learn the hosts of each, their life cycle, damage and symptoms. The student will learn control methods and common chemicals used for prevention. The student will identify basic structures associated with the ruminant digestive system. The student will understand prehension, mastication, and rumination. The student will understand the processes of digestion and absorption. The student will determine the importance of live visual inspection. The student will determine normal characteristics of sheep. The student will identify various skin and fleece, skeletal structure, reproductive and digestive abnormalities in sheep. The student will determine normal characteristics in swine. The student will be able to identify various skin and hair, skeletal structure, reproduction and digestion abnormalities in swine. | |
| Academic Vocabulary | Organism, Surgical, Economic impact, Prevention, Treatment, Immunizations, Injection sites (IV, IM,SubQ), TPR. | |
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