

Month	Subject/Chapter	State Standard	Objectives
August/September	Unit 1 Animal Nutrition and Digestion	Environmental Science 3.1 Biology 5.1, 5.2 Chemistry 4.1, 4.2, 4.7.a	<ul style="list-style-type: none"> a. Discuss the importance of nutrition and digestion for animal growth. b. Explore the basics of animal physiology. c. Determine how nutrients are used by various livestock species. d. Identify classes and sources of nutrients. e. Identify symptoms of nutrient deficiencies. f. Explain the role of feed additives in livestock nutrition g. Formulate a feed ration using the Pearson square. h. Compare and contrast animal digestive systems.
October/November	Unit 2 Animal Health	Biology Process Standard 1.1 Environmental Science 3.1, 3.2, 3.3	<ul style="list-style-type: none"> a. Discuss ethical considerations concerning the care and well-being of livestock. b. Determine good management practices for maintaining small and large animal health. c. Discuss the signs and symptoms of good and poor animal health. d. Discuss infectious and non-infectious livestock diseases. e. Identify common parasites that affect livestock. f. Analyze the life cycle stages of an internal and external parasite. g. Discuss categories of medication and proper storage. h. Explore methods, equipment, and locations for administering medication. i. Analyze a medication for withdrawal time period.
December	Unit 2b Swine/Beef/Sheep Industries	Physical Science Process 1.1 Biology Process 1.1 Physical Science Process Standard 7.2 Grade 10 Language Arts	<ul style="list-style-type: none"> a. Identify major breeds of beef cattle and their characteristics. b. Identify factors to consider when selecting beef cattle

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		Reading/Literature: 4.1.a	<p>for a specific purpose.</p> <ul style="list-style-type: none"> c. Discuss the phases of beef production. d. Locate the parts of a beef animal f. Identify major breeds of swine and their characteristics. g. Locate the key parts of a hog h. Identify consumer products derived from swine. i. Apply the universal ear notching system. j. Identify major breeds of sheep and their characteristics. k. Locate the parts of a sheep. l. Identify consumer products derived from sheep. m. Recall facts about wool composition and quality.
January	Unit 6 Food Science	Biology 5.1, 5.2 Biology Process Standards 1.1, 1.2, 1.3	<ul style="list-style-type: none"> a. Identify the roles of food technology and biotechnology in agriculture. b. Identify techniques used to enhance retail sales of food commodities. c. Explain the factors that are important in harvesting fruits and vegetables. d. Discuss the major steps used in slaughtering meat animals. e. Distinguish between the major cuts of red meat. f. Identify factors that affect the palatability of meat. g. Discuss the importance of techniques that will ensure food safety.
February	Unit 5 Plant and Animal Genetics	Biology 2.2, 3.1, 3.2, 3.3 Biology Process Standard 3.3, 4.3 Environmental Science Process Standard 3.3, 4.3	<ul style="list-style-type: none"> a. Explain Mendel's Laws of genetics. b. Predict genetic traits using the Punnett square. c. Discuss methods of plant and animal improvement. d. Explain the concept of genetic engineering. e. State safety concerns and safeguards in biotechnology.

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March	Unit 4 Plant Health	Enviro Science 4.2, Chemistry 2.2; Chemistry Process Standard 4.3, 4.5; Biology Process Standard 3.1, 3.2	<ul style="list-style-type: none"> a. Determine the nutrients needed for plants to grow. b. Determine the signs of nutrient deficiencies. c. Discuss the affect soil pH has on the absorption of nutrients. d. Discuss how soil amendmets and fertilizers affect plant growth. e. Identify the types of plant pests and how to treat them.
April	Unit 8 Presentation Development	Grade 12 Language Arts: Oral Language/ Listening and Speaking 2.3; Writing/ Grammar/Mechanics and Usage 1.1, 1.2, 1.3	<ul style="list-style-type: none"> a. Distinguish between informative and persuasive presentations. b. Determine how to select a topic and develop a message c. Examine the parts of a speech or presentation with the use of an outline d. Use basic researching methods to gather information. e. Discuss the importance of citations and a bibliography. f. Analyze the use of visual aids to support a presentation g. Discuss techniques for answering questions.
May	Unit 10 Welding, Brazing, Cutting	Chemistry 3.1, Math Process 4.2, Env Sci Process Standard 6.4, Biology 1.3, Phys Sci Process Standard 2.1	<ul style="list-style-type: none"> a. Review agricultural mechanics safety principles. b. Discuss the four basic welding processes c. Analyze electrode rods and wires to determine use. d. Discuss the five welding positions. e. Examine the types of welding joints. f. Discuss the various motions when welding. g. Compare and contrast oxyacetylene and plasma arc cutting. h. Discuss plasma arc safety.