

# ***ANIMAL SYSTEMS STANDARDS***



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Office of Career Readiness, Adult Learning, and Education Options  
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**VISION**

*All Nevadans ready for success in the 21st century*

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*To improve student achievement and educator effectiveness by ensuring opportunities, facilitating learning, and promoting excellence*



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### BUSINESS AND INDUSTRY VALIDATION

All CTE standards developed through the Nevada Department of Education are validated by business and industry through one or more of the following processes: (1) the standards are developed by a team consisting of business and industry representatives; or (2) a separate review panel was coordinated with industry experts to ensure the standards include the proper content; or (3) the adoption of nationally recognized standards endorsed by business and industry.

The Animal Systems standards were validated through active participation of business and industry representatives on the development team.

### PROJECT COORDINATOR

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## INTRODUCTION

The standards in this document are designed to clearly state what the student should know and be able to do upon completion of an advanced high school Animal Systems program. These standards are designed for a two-credit course sequence that prepares the student for a technical assessment directly aligned to the standards.

These exit-level standards are designed for the student to complete all standards through their completion of a program of study. These standards are intended to guide curriculum objectives for a program of study.

The standards are organized as follows:

- **Content Standards** are general statements that identify major areas of knowledge, understanding, and the skills students are expected to learn in key subject and career areas by the end of the program.
- **Performance Standards** follow each content standard. Performance standards identify the more specific components of each content standard and define the expected abilities of students within each content standard.
- **Performance Indicators** are very specific criteria statements for determining whether a student meets the performance standard. Performance indicators may also be used as learning outcomes, which teachers can identify as they plan their program learning objectives.

The crosswalk and alignment section of the document shows where the performance indicators support the Nevada Academic Content Standards. Where correlation with an academic content standard exists, students in the Animal Systems program perform learning activities that support, either directly or indirectly, achievement of the academic content standards that are listed.

All students are encouraged to participate in the career and technical student organization (CTSO) that relates to the Animal Systems program. CTSOs are co-curricular national organizations that directly reinforce learning in the CTE classroom through curriculum resources, competitive events, and leadership development. CTSOs provide students the ability to apply academic and technical knowledge, develop communication and teamwork skills, and cultivate leadership skills to ensure college and career readiness.

The Employability Skills for Career Readiness identify the “soft skills” needed to be successful in all careers and must be taught as an integrated component of all CTE course sequences. These standards are available in a separate document.

The **Standards Reference Code** is only used to identify or align performance indicators listed in the standards to daily lesson plans, curriculum documents, or national standards. The Standards Reference Code is an abbreviated name for the program, and the content standard, performance standard and performance indicator are referenced in the program standards. This abbreviated code for identifying standards uses each of these items. For example, ANSYS is the Standards Reference Code for Animal Systems. For Content Standard 2, Performance Standard 3 and Performance Indicator 4 the Standards Reference Code would be ANSYS.2.3.4.

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**CONTENT STANDARD 1.0: INTEGRATE CAREER AND TECHNICAL STUDENT ORGANIZATIONS (CTSOs)\*****PERFORMANCE STANDARD 1.1: EXPLORE THE HISTORY AND ORGANIZATION OF CTOS**

- 1.1.1 Discuss the requirements of CTSO participation/involvement as described in Carl D. Perkins Law
- 1.1.2 Research nationally recognized CTOS
- 1.1.3 Investigate the impact of federal and state government regarding the progression and operation of CTOS (e.g., Federal Statutes and Regulations, Nevada Administrative Code [NAC], Nevada Revised Statutes [NRS])

**PERFORMANCE STANDARD 1.2: DEVELOP LEADERSHIP SKILLS**

- 1.2.1 Discuss the purpose of parliamentary procedure
- 1.2.2 Demonstrate the proper use of parliamentary procedure
- 1.2.3 Differentiate between an office and a committee
- 1.2.4 Discuss the importance of participation in local, regional, state, and national conferences, events, and competitions
- 1.2.5 Participate in local, regional, state, or national conferences, events, or competitions
- 1.2.6 Describe the importance of a constitution and bylaws to the operation of a CTSO chapter

**PERFORMANCE STANDARD 1.3: PARTICIPATE IN COMMUNITY SERVICE**

- 1.3.1 Explore opportunities in community service-related work-based learning (WBL)
- 1.3.2 Participate in a service learning (program related) and/or community service project or activity
- 1.3.3 Engage with business and industry partners for community service

**PERFORMANCE STANDARD 1.4: DEVELOP PROFESSIONAL AND CAREER SKILLS**

- 1.4.1 Demonstrate college and career readiness (e.g., applications, resumes, interview skills, presentation skills)
- 1.4.2 Describe the appropriate professional/workplace attire and its importance
- 1.4.3 Investigate industry-standard credentials/certifications available within this Career Cluster™
- 1.4.4 Participate in authentic contextualized instructional activities
- 1.4.5 Demonstrate technical skills in various student organization activities/events

**PERFORMANCE STANDARD 1.5: UNDERSTAND THE RELEVANCE OF CAREER AND TECHNICAL EDUCATION (CTE)**

- 1.5.1 Make a connection between program standards to career pathway(s)
- 1.5.2 Explain the importance of participation and completion of a program of study
- 1.5.3 Promote community awareness of local student organizations associated with CTE programs

\*Refer to the program of study Curriculum Framework for appropriate CTSO(s).

**CONTENT STANDARD 2.0: EXAMINE THE ROLE OF AGRICULTURE IN SOCIETY****PERFORMANCE STANDARD 2.1: RECOGNIZE THE ROLE OF AGRICULTURE IN SOCIETY**

- 2.1.1 Assess how agriculture supports daily life
- 2.1.2 Describe the importance and value of global agricultural trade
- 2.1.3 Describe the various components of the agriculture industry (e.g., value chain)
- 2.1.4 Discuss the role of modern agriculture in basic human needs by identifying products used to provide food, clothing, and shelter (e.g., world food security)
- 2.1.5 Discuss the role of diverse cultures in developing American agriculture practices

**PERFORMANCE STANDARD 2.2: UNDERSTAND THE HISTORY OF PRODUCTION AGRICULTURE**

- 2.2.1 Compare agriculture's role in developing civilizations
- 2.2.2 Organize the major technological developments that have occurred in agriculture
- 2.2.3 Interpret historical events and trends that have led to the development of today's agriculture industry

**PERFORMANCE STANDARD 2.3: EXPLORE THE WORLD FOOD SUPPLY**

- 2.3.1 Analyze the impact of agriculture on the local, state, national, and world economies
- 2.3.2 Explain the role of government in the world's food supply

**CONTENT STANDARD 3.0: DEVELOP LEADERSHIP AND COMMUNICATION SKILLS THROUGH PARTICIPATION IN FFA****PERFORMANCE STANDARD 3.1: UNDERSTAND THE HISTORY AND ORGANIZATION OF FFA**

- 3.1.1 Summarize how, when, and why the National FFA Organization was founded
- 3.1.2 Describe the mission and strategies, colors, motto, parts of the emblem, and organizational structure of the National FFA Organization
- 3.1.3 Recite and explain the meaning of the FFA Creed
- 3.1.4 Explain the purpose of FFA's Program of Activities and describe its committee structure

**PERFORMANCE STANDARD 3.2: UNDERSTAND THE OPPORTUNITIES IN FFA**

- 3.2.1 Describe how FFA develops leadership skills, personal growth, and career success
- 3.2.2 Identify major state and national activities and awards available to FFA members
- 3.2.3 Compete in at least one Leadership or Career Development Event at the local level

**PERFORMANCE STANDARD 3.3: PROPERLY USE SKILLS IN PARLIAMENTARY PROCEDURE**

- 3.3.1 List three reasons why parliamentary procedure is used in meetings
- 3.3.2 List five classifications of motions
- 3.3.3 Properly perform ten procedures of parliamentary law

**PERFORMANCE STANDARD 3.4: UNDERSTAND THE IMPORTANCE OF SCHOOL AND COMMUNITY AWARENESS**

- 3.4.1 Discuss the meaning and importance of community service and some agriculture-associated organizations
- 3.4.2 Explain how FFA members can become involved in community improvement and development, and plan an activity

**PERFORMANCE STANDARD 3.5: RECOGNIZE THE TRAITS OF EFFECTIVE LEADERS AND PARTICIPATE IN LEADERSHIP TRAINING THROUGH INVOLVEMENT IN FFA**

- 3.5.1 Expand leadership experience by serving as a chapter officer or on a committee
- 3.5.2 Participate in a career development event at the local level or above

**PERFORMANCE STANDARD 3.6: UNDERSTAND THE IMPORTANCE OF SCHOOL AND COMMUNITY AWARENESS**

- 3.6.1 Participate in a school improvement or community development project



**CONTENT STANDARD 4.0: DEVELOP A SUPERVISED AGRICULTURAL EXPERIENCE (SAE) PROGRAM****PERFORMANCE STANDARD 4.1: UNDERSTAND THE BENEFITS OF AN SAE PROGRAM**

- 4.1.1 Participate in a foundational SAE
- 4.1.2 Explore an immersion SAE
- 4.1.3 Describe the value of SAE programs
- 4.1.4 Compare and contrast the six types of SAEs

**PERFORMANCE STANDARD 4.2: UNDERSTAND THE BENEFITS OF SAE RECORDS**

- 4.2.1 Analyze the importance of keeping records of an SAE program (Agricultural Experience Tracker [AET©])
- 4.2.2 Investigate the types of financial records needed to support a chosen SAE program
- 4.2.3 Demonstrate the procedures for making entries in The AET©
- 4.2.4 Reflect on The AET© Annual Review

**PERFORMANCE STANDARD 4.3: MAINTAIN A SUPERVISED AGRICULTURAL EXPERIENCE**

- 4.3.1 Accurately maintain SAE record books
- 4.3.2 Apply for proficiency award related to SAE program area
- 4.3.3 Actively pursue necessary steps to receive higher degrees in FFA

**CONTENT STANDARD 5.0: EXPLORING SCIENTIFIC INVESTIGATION IN AGRICULTURE****PERFORMANCE STANDARD 5.1: DESIGN AND CONDUCT AGRICULTURAL RESEARCH**

- 5.1.1 Explain that agriculture is a science
- 5.1.2 List the steps of the scientific method
- 5.1.3 Explain the steps in conducting research in agriculture and design an appropriate research project

**PERFORMANCE STANDARD 5.2: UNDERSTAND SCIENTIFIC MEASUREMENT**

- 5.2.1 Describe the systems of measurement used in this country
- 5.2.2 Determine the metric prefixes and units used for measuring length, volume weight, temperature, and area
- 5.2.3 Convert from one system of units to another system of units

**PERFORMANCE STANDARD 5.3: USE LABORATORY TOOLS AND EQUIPMENT**

- 5.3.1 Identify and properly use personal protective equipment (PPE)
- 5.3.2 Describe safety in agriscience laboratories
- 5.3.3 Demonstrate proper use of common agriscience equipment

**PERFORMANCE STANDARD 5.4: EXPLORE CAREERS IN AGRICULTURAL SCIENCE**

- 5.4.1 Identify basic career information related to agricultural science
- 5.4.2 Research several agricultural science careers

**CONTENT STANDARD 6.0: DEVELOP AN UNDERSTANDING OF ANIMAL SCIENCE****PERFORMANCE STANDARD 6.1: UNDERSTANDING CELLULAR BIOLOGY**

- 6.1.1 Explain a cell's role and compare and contrast the types of cells (prokaryotic and eukaryotic)
- 6.1.2 Analyze the components of an animal cell and explain their functions
- 6.1.3 Analyze the components of a plant cell and explain their functions
- 6.1.4 Differentiate between a plant and animal cell

**PERFORMANCE STANDARD 6.2: EXPLORE AND EVALUATE THE LIVESTOCK INDUSTRY**

- 6.2.1 Define terms used to describe beef cattle, dairy, sheep, swine, and horses and identify their external parts
- 6.2.2 Compare and contrast the common breeds of livestock
- 6.2.3 Identify and describe methods used to select different species of livestock
- 6.2.4 Evaluate livestock in a systematic, organized manner according to industry standards

**PERFORMANCE STANDARD 6.3: EXPLORE REPRODUCTIVE PHYSIOLOGY AND BREEDING SYSTEMS**

- 6.3.1 Compare and explain common breeding systems used in livestock production

**PERFORMANCE STANDARD 6.4: UNDERSTAND ANIMAL NUTRITION**

- 6.4.1 Identify the major parts and describe the functions of the digestive systems in livestock
- 6.4.2 Explore the major nutrients and their importance to animals

**PERFORMANCE STANDARD 6.5: UNDERSTAND ANIMAL HEALTH MANAGEMENT**

- 6.5.1 Measure animal health through visual and tangible observations
- 6.5.2 Identify good animal health management practices

**PERFORMANCE STANDARD 6.6: EXPLORE CAREERS IN ANIMAL SCIENCE**

- 6.6.1 Identify basic career information related to animal science
- 6.6.2 Research several animal science careers

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**CONTENT STANDARD 7.0: UNDERSTANDING PLANT SCIENCE****PERFORMANCE STANDARD 7.1: UNDERSTAND PLANT ANATOMY**

- 7.1.1 Identify and describe the parts of a flower
- 7.1.2 Explain the purpose of a flower
- 7.1.3 Identify and describe the parts of a root
- 7.1.4 Explain the purpose of a root
- 7.1.5 Identify and describe the parts of a stem
- 7.1.6 Explain the purpose of a stem
- 7.1.7 Identify and describe the parts of a leaf
- 7.1.8 Explain the purpose of a leaf

**PERFORMANCE STANDARD 7.2: UNDERSTAND PLANT PHYSIOLOGY**

- 7.2.1 Describe the process of photosynthesis
- 7.2.2 Describe the process of cellular respiration
- 7.2.3 Explain the relationship between photosynthesis and respiration
- 7.2.4 Summarize why photosynthesis and respiration are important to human beings

**PERFORMANCE STANDARD 7.3: UNDERSTAND PLANT PROPAGATION**

- 7.3.1 Explain the importance of plant propagation
- 7.3.2 Explore the basic principles of crop production (food, forage, and fiber)
- 7.3.3 Identify and list the major parts of a seed
- 7.3.4 List the function of each major part of a seed
- 7.3.5 Describe and observe the process of seed germination
- 7.3.6 Describe the process of fertilization and pollination

**PERFORMANCE STANDARD 7.4: UNDERSTAND PLANT NUTRITION AND HEALTH**

- 7.4.1 Differentiate between macronutrients and micronutrients
- 7.4.2 Describe pH and how it is modified
- 7.4.3 Describe the components of a fertilizer (e.g., nitrogen, phosphorus, potassium [NPK])

**PERFORMANCE STANDARD 7.5: EXPLORE CAREERS IN PLANT SCIENCE**

- 7.5.1 Identify basic career information related to plant science
- 7.5.2 Research several plant science careers

**CONTENT STANDARD 8.0: EXPLORING SOIL SCIENCE****PERFORMANCE STANDARD 8.1: UNDERSTAND SOIL TEXTURE AND STRUCTURE**

- 8.1.1 List the components of soil
- 8.1.2 Describe the concept of soil texture and its importance
- 8.1.3 Classify the texture of a soil sample
- 8.1.4 Identify various soil structures, their formation, and importance in agriculture production

**PERFORMANCE STANDARD 8.2: EXPLORE CAREERS IN SOIL SCIENCE**

- 8.2.1 Identify basic career information related to soil science
- 8.2.2 Research several soil science careers

**CONTENT STANDARD 9.0: EXPLORING ORNAMENTAL HORTICULTURE****PERFORMANCE STANDARD 9.1: EXPLORE AREAS OF ORNAMENTAL HORTICULTURE**

- 9.1.1 Explore the Basic Principles of Landscape Design
- 9.1.2 Explore the Basic Principles of Greenhouse Management
- 9.1.3 Explore the Basic Principles of Floriculture
- 9.1.4 Explore the Basic Principles of Nursery Crop Production (e.g., gardening, cut flowers)

**PERFORMANCE STANDARD 9.2: EXPLORE CAREERS IN ORNAMENTAL HORTICULTURE**

- 9.2.1 Identify basic career information related to ornamental horticulture science
- 9.2.2 Research several ornamental horticulture science careers (e.g., landscape, greenhouse management, horticulture)

**CONTENT STANDARD 10.0: EXPLAIN BASIC SALES AND MARKETING CONCEPTS FOR AGRICULTURAL PRODUCTS****PERFORMANCE STANDARD 10.1: DEMONSTRATE AN UNDERSTANDING OF AGRICULTURAL MARKETING**

- 10.1.1 Identify current agriculture product marketing trends
- 10.1.2 Compare and contrast marketing and sales
- 10.1.3 Define the purpose for developing a marketing plan

**PERFORMANCE STANDARD 10.2: UNDERSTAND THE PRINCIPLES OF AGRICULTURAL SALES**

- 10.2.1 Identify the characteristics of an effective salesperson, and define related terms
- 10.2.2 Compare and contrast the relationship between marketing and selling
- 10.2.3 Describe the customer buying process
- 10.2.4 Identify the six steps involved in the selling process

**PERFORMANCE STANDARD 10.3: EXPLORE CAREERS IN SALES AND MARKETING**

- 10.3.1 Identify basic career information related to sales and marketing
- 10.3.2 Research several sales and marketing careers

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**CONTENT STANDARD 11.0: UNDERSTAND THE RELATIONSHIP BETWEEN AGRICULTURE AND NATURAL RESOURCE MANAGEMENT****PERFORMANCE STANDARD 11.1: EXPLORE TYPES OF NATURAL RESOURCES**

- 11.1.1 Define and identify types of natural resources
- 11.1.2 Distinguish between renewable and nonrenewable resources
- 11.1.3 Compare the difference between inexhaustible and exhaustible resources

**PERFORMANCE STANDARD 11.2: UNDERSTAND HUMAN DEMAND ON NATURAL RESOURCES**

- 11.2.1 Recognize how humans use natural resources
- 11.2.2 Identify the urban and rural impacts of natural resource use
- 11.2.3 Analyze the impact of recycling and reusing resources

**PERFORMANCE STANDARD 11.3: COMPREHEND NATURAL RESOURCE CONSERVATION**

- 11.3.1 Compare and contrast conservation and preservation

**PERFORMANCE STANDARD 11.4: UNDERSTAND ECOLOGY AND ECOSYSTEMS**

- 11.4.1 Define ecology and ecosystems
- 11.4.2 Explain natural selection and succession
- 11.4.3 Identify biomes and explain ecosystem diversity
- 11.4.4 Diagram and explain the nitrogen, phosphorus, carbon, and water cycle

**PERFORMANCE STANDARD 11.5: EXPLORE PRINCIPLES OF RANGELAND MANAGEMENT**

- 11.5.1 Define range
- 11.5.2 Define multiple use
- 11.5.3 Identify Nevada's ecoregions (Sierra Nevada, Northern Basin and Range, Central Basin and Range, and Mojave Basin and Range)

**PERFORMANCE STANDARD 11.6: EXPLORE CAREERS IN NATURAL RESOURCE MANAGEMENT**

- 11.6.1 Identify basic career information related to natural resource management
- 11.6.2 Research several natural resource management careers



**CONTENT STANDARD 12.0: EXPLORE THE STRUCTURE AND FUNCTION OF THE MAJOR ORGAN SYSTEMS OF LIVESTOCK****PERFORMANCE STANDARD 12.1: CATEGORIZE THE ANATOMY AND PHYSIOLOGY OF DIFFERENT ANIMAL SPECIES**

- 12.1.1 Describe how the animal body is organized in terms of cells, tissues, organs, and organ systems
- 12.1.2 List and briefly describe the major organ systems found in vertebrate animals
- 12.1.3 Relate anatomy and physiology to livestock and small animal production

**PERFORMANCE STANDARD 12.2: EXAMINE THE ANATOMY AND PHYSIOLOGY OF THE MUSCULOSKELETAL SYSTEM**

- 12.2.1 Examine and describe the functions of the musculoskeletal system
- 12.2.2 Identify and recall the names of components of the musculoskeletal system found in livestock and companion animals

**PERFORMANCE STANDARD 12.3: EXPLORE THE INTEGUMENTARY AND URINARY SYSTEMS**

- 12.3.1 Explain the integumentary system, and diagram the two layers of skin
- 12.3.2 Identify components of the urinary system, examine its role, and explain the function of the kidneys, ureters, urinary bladder, and urethra

**PERFORMANCE STANDARD 12.4: ANALYZE THE ENDOCRINE AND NERVOUS SYSTEMS**

- 12.4.1 Identify and describe the functions of the glands that compose the endocrine system
- 12.4.2 Identify and describe the functions of the organs that compose the nervous system
- 12.4.3 Describe the effect of hormones on behavior

**PERFORMANCE STANDARD 12.5: EXAMINE THE CIRCULATORY AND RESPIRATORY SYSTEM**

- 12.5.1 Identify the components of the respiratory system and describe the functions of the organs that compose the respiratory system
- 12.5.2 Identify the components of the circulatory system, including identification of all major veins and arteries, and describe the functions of the organs that compose the circulatory system
- 12.5.3 Define blood and describe the cell structure and components of blood
- 12.5.4 Explain blood's role in the exchange of materials throughout the body

**PERFORMANCE STANDARD 12.6: DIFFERENTIATE THE MAJOR PARTS OF THE DIGESTIVE SYSTEM**

- 12.6.1 Describe the structures and functions of a monogastric digestive system
- 12.6.2 Describe the structures and functions of a ruminant digestive system
- 12.6.3 Describe the structures and functions of a pseudo-ruminant digestive system
- 12.6.4 Investigate the differences of species based on digestive systems and diet types

**CONTENT STANDARD 13.0: EXPLORE NUTRITIONAL REQUIREMENTS FOR LIVESTOCK****PERFORMANCE STANDARD 13.1: COMPARE AND CONTRAST FEEDSTUFFS FOR LIVESTOCK**

- 13.1.1 Explain the functions of feed and how they supply energy to livestock
- 13.1.2 Identify the various feed types and characteristics
- 13.1.3 Compare and contrast the types of feedstuffs (roughages, concentrates, supplements/additives, and byproducts)
- 13.1.4 Distinguish between good quality and poor-quality feedstuffs, and examine how processing methods (grinding, rolling, palletizing, etc.) improve palatability
- 13.1.5 Examine storage and feeding practices of common feedstuffs
- 13.1.6 Examine the role of feed additives and their impact on animal growth

**PERFORMANCE STANDARD 13.2: CREATE BALANCED LIVESTOCK FEED RATIONS**

- 13.2.1 Identify the steps in balancing rations
- 13.2.2 Discuss the importance of feed analysis
- 13.2.3 Discuss how nutritional information is used in developing rations
- 13.2.4 Develop balanced rations using the Pearson Square method

**CONTENT STANDARD 14.0: EXPLORING THE LIVESTOCK REPRODUCTIVE SYSTEMS****PERFORMANCE STANDARD 14.1: COMPARE ANATOMY AND PHYSIOLOGY OF LIVESTOCK REPRODUCTIVE SYSTEMS**

- 14.1.1 Define and explain the steps of spermatogenesis and oogenesis, and describe sperm and egg cellular characteristics
- 14.1.2 Explain the phases of reproductive development in the life of an animal, and determine an animal's readiness for breeding

**PERFORMANCE STANDARD 14.2: COMPARE NATURAL ANIMAL REPRODUCTION**

- 14.2.1 Construct a diagram of the phases of the estrous cycle and identify estrus in relation to the heat cycle
- 14.2.2 Describe the process and purpose of fertilization, the gestation length, and parturition in livestock species
- 14.2.3 Discuss the events that occur leading up to, during, and after parturition and describe the problems that may be encountered during parturition

**PERFORMANCE STANDARD 14.3: ANALYZE ANIMAL REPRODUCTION MANAGEMENT**

- 14.3.1 Identify common reproductive diseases that affect animals and determine appropriate prevention and treatment methods
- 14.3.2 Discuss reproduction management practices, including artificial insemination and natural breeding, and determine how they affect reproductive performance
- 14.3.3 Compare and contrast common breeding systems used in livestock production
- 14.3.4 Research the advancement of reproductive technology (e.g., estrous synchronization, semen sexing, embryo transfer, cloning, and genetic engineering)

**PERFORMANCE STANDARD 14.4: EXPLAIN THE PROCESS OF LACTATION**

- 14.4.1 Define lactation, and describe the structure and function of the mammary glands of common agricultural animals
- 14.4.2 Describe the components of milk and colostrum and their role in newborn livestock
- 14.4.3 Examine how factors such as genetics, disease, feed, environment, and body condition affect milk production

**CONTENT STANDARD 15.0: EXPLORE INHERITANCE AND THE GENETIC BASIS FOR ANIMAL SELECTION****PERFORMANCE STANDARD 15.1: IDENTIFY AND CLASSIFY VARIOUS TYPES AND CONFORMATION OF DOMESTIC ANIMALS**

- 15.1.1 Interpret performance data when evaluating livestock
- 15.1.2 Classify animals and their characteristics based on phenotype
- 15.1.3 Identify current industry standards for animal selection according to species
- 15.1.4 Classify body condition scoring system among the different species

**PERFORMANCE STANDARD 15.2: EXPLORE GENETICS**

- 15.2.1 Describe the importance of understanding genetics and recognize the impact of Gregor Mendel's development of the basic principles of heredity
- 15.2.2 Examine the components of DNA and describe its structure
- 15.2.3 Explain the principles of dominance and incomplete dominance
- 15.2.4 Explain the results of independent assortment
- 15.2.5 Predict the genotypes and phenotypes and sex from monohybrid and dihybrid crosses by using the Punnett square

**CONTENT STANDARD 16.0: EXPLORING ANIMAL WELFARE AND ANIMAL PRODUCTION ISSUES IN TODAY'S SOCIETY****PERFORMANCE STANDARD 16.1: ANALYZE THE PHILOSOPHIES SURROUNDING ANIMAL WELFARE**

- 16.1.1 Compare and contrast animal welfare versus the concept of animal rights
- 16.1.2 Research the basis for general concerns regarding animal welfare

**PERFORMANCE STANDARD 16.2: DISCUSS HISTORICAL EVENTS, CHANGING ATTITUDES, AND LEGISLATION REGARDING ANIMAL USE**

- 16.2.1 Explore the historical events that contributed to the evolution of attitudes regarding animal usage
- 16.2.2 Examine legislation regarding current animal usage

**PERFORMANCE STANDARD 16.3: EXPLAIN CONTROVERSIAL PRACTICES AND CULTURAL DIFFERENCES IN ANIMAL USE**

- 16.3.1 Compare and contrast current controversial issues in animal agriculture
- 16.3.2 Distinguish between fact and propaganda when analyzing animal production issues
- 16.3.3 Compare and contrast cultural differences and their impact on animal use

**CONTENT STANDARD 17.0: EVALUATE ANIMAL HEALTH****PERFORMANCE STANDARD 17.1: EXPLORE ANIMAL DISEASE TRANSMISSION AND IMMUNITY**

- 17.1.1 Describe the modes of transmission of infectious diseases
- 17.1.2 Identify how passive and active immunity can be enhanced by management

**PERFORMANCE STANDARD 17.2: CLASSIFY ANIMAL MEDICATIONS**

- 17.2.1 Distinguish between the two classifications of drugs (biologics and pharmaceuticals)
- 17.2.2 Compare appropriate storage methods for medications and recognize how improper storage conditions may affect drugs

**PERFORMANCE STANDARD 17.3: ADMINISTER MEDICATION AND CARE**

- 17.3.1 Illustrate methods (topically, orally, and injected) used to administer vaccines and pharmaceuticals, including types of injections and determination of appropriate injection site(s)
- 17.3.2 Identify the instruments (multi-dose hypodermic syringe, hypodermic syringe and needle, drench gun, balling gun) used to administer vaccines and pharmaceuticals
- 17.3.3 Examine the components of a label found on animal medication and interpret a veterinarian's prescription

**PERFORMANCE STANDARD 17.4: INTERPRET IMPACT OF PARASITES ON ANIMAL HEALTH**

- 17.4.1 Identify common internal and external parasites that affect livestock and describe the diseases that they may spread or cause
- 17.4.2 Diagram and describe the complete life cycle of common parasites that affect animals
- 17.4.3 Recognize the importance of controlling parasites in disease management

**PERFORMANCE STANDARD 17.5: INVESTIGATE DISEASE CONTROL AND MANAGEMENT PRACTICES**

- 17.5.1 Explain how cleanliness affects disease control and compare antiseptics and disinfectants
- 17.5.2 Evaluate vaccination and prevention methods and describe the types of vaccines available
- 17.5.3 Investigate disease control methods and their appropriate applications (e.g., antibiotics, vaccines, anthelmintic)

**CONTENT STANDARD 18.0: EXPLORE THE LIVESTOCK INDUSTRY****PERFORMANCE STANDARD 18.1: EXPLORE THE BEEF INDUSTRY**

- 18.1.1 Recognize the advantages and disadvantages of beef production operations
- 18.1.2 Determine the facility and equipment needs in beef production operations
- 18.1.3 Compare and contrast the types of beef-production systems and their challenges
- 18.1.4 Analyze the components and challenges of a cow-calf, backgrounding, and finishing operations and examine the factors that affect their profitability
- 18.1.5 Outline the major steps involved in processing edible and inedible products and byproducts
- 18.1.6 Discuss beneficial record-keeping programs
- 18.1.7 Describe identification practices

**PERFORMANCE STANDARD 18.2: EXPLORE THE DAIRY CATTLE INDUSTRY**

- 18.2.1 Identify the leading states in dairy production operations
- 18.2.2 Recognize the advantages and disadvantages of dairy production operations
- 18.2.3 Determine the facility and equipment needs in dairy production operations
- 18.2.4 Compare and contrast the types of dairy-production systems and their challenges and analyze the components and challenges of each
- 18.2.5 Outline the major steps involved in processing edible and inedible products and byproducts
- 18.2.6 Discuss beneficial record-keeping programs
- 18.2.7 Describe identification practices

**PERFORMANCE STANDARD 18.3: EXPLORE THE SWINE INDUSTRY**

- 18.3.1 Recognize the advantages and disadvantages of swine production operations
- 18.3.2 Determine the facility and equipment needs in swine production operations
- 18.3.3 Compare and contrast the types of swine-production systems and their challenges and analyze the components and challenges of each
- 18.3.4 Outline the major steps involved in processing edible and inedible products and byproducts
- 18.3.5 Discuss beneficial record-keeping programs
- 18.3.6 Describe identification practices

**PERFORMANCE STANDARD 18.4: EXPLORE THE SHEEP AND GOAT INDUSTRY**

- 18.4.1 Recognize the advantages and disadvantages of sheep and goat production operations
- 18.4.2 Determine the facility and equipment needs in sheep and goat production operations
- 18.4.3 Compare and contrast the types of sheep and goat systems and their challenges and analyze the components and challenges of each (e.g., fiber, meat, dairy)
- 18.4.4 Outline the major steps involved in processing edible and inedible products and byproducts
- 18.4.5 Discuss beneficial record-keeping programs
- 18.4.6 Describe identification practices

**PERFORMANCE STANDARD 18.5: EXPLORE THE POULTRY INDUSTRY**

- 18.5.1 Recognize the advantages and disadvantages of the different poultry production operations
- 18.5.2 Determine the facility and equipment needs in poultry production operations (free range, housed)
- 18.5.3 Analyze the components and challenges of poultry operations and examine the factors that affect their profitability (e.g., feathers, broiler, layer)
- 18.5.4 Compare and contrast the types of poultry production systems and their challenges (e.g., chicken, turkey, game birds, exotics)
- 18.5.5 Analyze the components and challenges of each type of poultry production (e.g., chicken, turkey, game birds, exotics)
- 18.5.6 Outline the major steps involved in processing edible and inedible products and byproducts
- 18.5.7 Discuss beneficial record-keeping programs

**PERFORMANCE STANDARD 18.6: EXPLORE THE EQUINE INDUSTRY**

- 18.6.1 Recognize the advantages and disadvantages of equine production operations
- 18.6.2 Determine the facility and equipment needs in equine production operations
- 18.6.3 Compare and contrast the types of equine production systems and their challenges and analyze the components and challenges of each (e.g., work, sport, therapy)
- 18.6.4 Discuss beneficial record-keeping programs
- 18.6.5 Describe identification practices (i.e., tattoos, branding)



**CONTENT STANDARD 19.0: DEVELOP A LOGICAL ARGUMENT FOR EVALUATION AND SELECTION OF ANIMALS****PERFORMANCE STANDARD 19.1: EVALUATE LIVESTOCK USING SPECIES, BREED, AND TYPE CHARACTERISTICS**

- 19.1.1 Evaluate livestock in a systematic, organized manner according to industry standards
- 19.1.2 Evaluate livestock using EPDs (Expected Progeny Difference) and RFIs (Residual Feed Index)
- 19.1.3 Orally defend the selection of breeding replacement animals
- 19.1.4 Orally defend the selection of meat animals
- 19.1.5 Orally defend the selection of milk-producing animals
- 19.1.6 Orally defend the selection of equine based on performance and conformation

**CONTENT STANDARD 20.0: EXPLORE LAND STEWARDSHIP**

**PERFORMANCE STANDARD 20.1: UNDERSTANDING LAND STEWARDSHIP PRACTICES**

- 20.1.1 Compare and contrast range/pasture ecosystems and their monitoring systems
- 20.1.2 Compare and contrast grazing systems

**CONTENT STANDARD 21.0: EXAMINE MARKETING OF LIVESTOCK PRODUCTS****PERFORMANCE STANDARD 21.1: EVALUATE DIFFERENT LIVESTOCK MARKETING TECHNIQUES**

- 21.1.1 Compare and contrast video marketing versus traditional livestock sales
- 21.1.2 Compare and contrast tools and techniques for niche markets
- 21.1.3 Explain how the stock and futures markets affect the livestock industry
- 21.1.4 Develop a marketing plan for livestock or a livestock product

**CONTENT STANDARD 22.0: EXPLORE CAREER OPPORTUNITIES IN THE ANIMAL SCIENCE INDUSTRY**

**PERFORMANCE STANDARD 22.1: UNDERSTAND EMPLOYMENT FIELDS IN THE ANIMAL SCIENCE INDUSTRY**

- 22.1.1 Research career opportunities in livestock production, pleasure and service animals, and animal science

**CROSSWALKS AND ALIGNMENTS****CROSSWALKS (ACADEMIC STANDARDS)**

The crosswalk of the Animal Systems Standards shows links to the Nevada Academic Content Standards. The crosswalk identifies the performance indicators in which the learning objectives in the Animal Systems program support academic learning. The performance indicators are grouped according to their content standard and are crosswalked to the Nevada Academic Content Standards in English Language Arts, Mathematics, and Science.

**ALIGNMENTS (MATHEMATICAL PRACTICES)**

In addition to correlation with the Nevada Academic Content Standards for Mathematics, many performance indicators support the Mathematical Practices. The following table illustrates the alignment of the Animal Systems Standards Performance Indicators and the Mathematical Practices. This alignment identifies the performance indicators in which the learning objectives in the Animal Systems program support academic learning.

**ALIGNMENTS (SCIENCE AND ENGINEERING PRACTICES)**

In addition to correlation with the Nevada Academic Content Standards for Science, many performance indicators support the Science and Engineering Practices. The following table illustrates the alignment of the Animal Systems Standards Performance Indicators and the Science and Engineering Practices. This alignment identifies the performance indicators in which the learning objectives in the Animal Systems program support academic learning.

**CROSSWALKS (COMMON CAREER TECHNICAL CORE)**

The crosswalk of the Animal Systems Standards shows links to the Common Career Technical Core. The crosswalk identifies the performance indicators in which the learning objectives in the Animal Systems program support the Common Career Technical Core. The Common Career Technical Core defines what students should know and be able to do after completing instruction in a program of study. The Animal Systems Standards are crosswalked to the Career Cluster Career Cluster™ and the Career Pathway Career Pathway.

**CROSSWALK OF ANIMAL SYSTEMS STANDARDS  
AND THE NEVADA ACADEMIC CONTENT STANDARDS**

**CONTENT STANDARD 1.0: INTEGRATE CAREER AND TECHNICAL STUDENT ORGANIZATIONS (CTSOs)**

Performance Indicators	Nevada Academic Content Standards
1.1.1	<p><b>English Language Arts: Speaking and Listening Standards</b></p> <p>SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p>SL.11-12.2 Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.</p> <p>SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p>
1.1.2	<p><b>English Language Arts: Speaking and Listening Standards</b></p> <p>SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p>SL.11-12.2 Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.</p> <p>SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b></p> <p>WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
1.1.3	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b></p> <p>WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>

Performance Indicators	Nevada Academic Content Standards
1.2.1	<p><b>English Language Arts: Speaking and Listening Standards</b></p> <p>SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p>SL.11-12.2 Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.</p> <p>SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p>
1.2.4	<p><b>English Language Arts: Speaking and Listening Standards</b></p> <p>SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p>SL.11-12.2 Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.</p> <p>SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p>
1.2.5	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b></p> <p>WHST.11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>
1.4.1	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b></p> <p>WHST.11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>

Performance Indicators	Nevada Academic Content Standards
1.4.2	<p><b>English Language Arts: Speaking and Listening Standards</b></p> <p>SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p>SL.11-12.2 Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.</p> <p>SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b></p> <p>WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
1.4.3	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b></p> <p>WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
1.4.4	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b></p> <p>WHST.11-12.5 Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.</p>
1.4.5	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b></p> <p>WHST.11-12.6 Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.</p>



Performance Indicators	Nevada Academic Content Standards
1.5.2	<p><b>English Language Arts: Language Standards</b>  L.11-12.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.</p> <p><b>English Language Arts: Speaking and Listening Standards</b>  SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p>SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>  WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>

CONTENT STANDARD 2.0: EXAMINE THE ROLE OF AGRICULTURE IN SOCIETY

Performance Indicators	Nevada Academic Content Standards
2.1.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>                      RST.11-12.8 Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p><b>English Language Arts: Speaking and Listening Standards</b>                      SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>                      WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-Earth and Human Activity</b>                      HS-ESS3-1 Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.</p>
2.1.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>                      RST.11-12.8 Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p><b>English Language Arts: Speaking and Listening Standards</b>                      SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>                      WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-Earth and Human Activity</b>                      HS-ESS3-1 Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.</p>

Performance Indicators	Nevada Academic Content Standards
2.1.3	<p><b>English Language Arts: Speaking and Listening Standards</b></p> <p>SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p>SL.11-12.2 Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.</p> <p>SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p> <p><b>Science: HS-Engineering Design</b></p> <p>HS-ETS1-1 Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.</p>
2.1.4	<p><b>English Language Arts: Speaking and Listening Standards</b></p> <p>SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p>SL.11-12.2 Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.</p> <p>SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p> <p><b>Science: HS-Earth and Human Activity</b></p> <p>HS-ESS3-1 Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.</p>

Performance Indicators	Nevada Academic Content Standards
2.1.5	<p><b>English Language Arts: Speaking and Listening Standards</b></p> <p>SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p>SL.11-12.2 Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.</p> <p>SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p> <p><b>Science: HS-Engineering Design</b></p> <p>HS-ETS1-2 Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.</p>
2.2.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b></p> <p>RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b></p> <p>WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-Earth and Human Activity</b></p> <p>HS-ESS3-1 Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.</p>
2.2.2	<p><b>Science: HS-Engineering Design</b></p> <p>HS-ETS1-2 Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.</p>

Performance Indicators	Nevada Academic Content Standards
2.2.3	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-Engineering Design</b> HS-ETS1-2 Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.</p>
2.3.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p> <p><b>Science: HS-Engineering Design</b> HS-ETS1-1 Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.</p>
2.3.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-Engineering Design</b> HS-ETS1-1 Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.</p>

## CONTENT STANDARD 3.0: DEVELOP LEADERSHIP AND COMMUNICATION SKILLS THROUGH PARTICIPATION IN FFA

Performance Indicators	Nevada Academic Content Standards
3.1.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
3.1.3	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>
3.1.4	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
3.2.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>

Performance Indicators	Nevada Academic Content Standards
3.4.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>  RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Speaking and Listening Standards</b>  SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>  WHST.11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>
3.4.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>  RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>  WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
3.5.1	<p><b>English Language Arts: Speaking and Listening Standards</b>  SL.11-12.1b Work with peers to promote civil, democratic discussions and decision-making, set clear goals and deadlines, and establish individual roles as needed.</p>

## CONTENT STANDARD 4.0: DEVELOP A SUPERVISED AGRICULTURAL EXPERIENCE (SAE) PROGRAM

Performance Indicators	Nevada Academic Content Standards
4.1.1	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>            WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
4.1.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>            RST.11-12.8 Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p><b>English Language Arts: Speaking and Listening Standards</b>            SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>            WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
4.1.3	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>            RST.11-12.7 Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.</p> <p><b>English Language Arts: Speaking and Listening Standards</b>            SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>            WHST.11-12.1b Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience’s knowledge level, concerns, values, and possible biases.</p>
4.2.1	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>            WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>



Performance Indicators	Nevada Academic Content Standards
4.2.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>  RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>  WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
4.2.3	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>  RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p>
4.3.1	<p><b>English Language Arts: Language Standards</b>  L.11-12.2b Spell correctly.</p>
4.3.2	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>  WHST.11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>

## CONTENT STANDARD 5.0: EXPLORING SCIENTIFIC INVESTIGATION IN AGRICULTURE

Performance Indicators	Nevada Academic Content Standards
5.1.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
5.1.3	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
5.2.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.8 Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>

Performance Indicators	Nevada Academic Content Standards
5.3.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>  RST.11-12.8 Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p><b>English Language Arts: Speaking and Listening Standards</b>  SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>  WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
5.4.2	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>  WHST.11-12.7 Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.</p>

CONTENT STANDARD 6.0: DEVELOP AN UNDERSTANDING OF ANIMAL SCIENCE

Performance Indicators	Nevada Academic Content Standards
6.1.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>                      RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Speaking and Listening Standards</b>                      SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>                      WHST.11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b>                      HS-LS1-1 Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells.</p>
6.1.2	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>                      WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b>                      HS-LS1-1 Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells.</p>
6.1.3	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>                      WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b>                      HS-LS1-1 Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells.</p>

Performance Indicators	Nevada Academic Content Standards
6.1.4	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>            WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b>            HS-LS1-1 Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells.</p>
6.2.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>            RST.11-12.7 Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.</p> <p><b>English Language Arts: Speaking and Listening Standards</b>            SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>            WHST.11-12.1b Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience’s knowledge level, concerns, values, and possible biases.</p>
6.2.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>            RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>            WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
6.3.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>            RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>            WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>

Performance Indicators	Nevada Academic Content Standards
6.4.1	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>            WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b>            HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.</p>
6.4.2	<p><b>Science: HS-Energy</b>            HS-PS3-3 Design, build, and refine a device that works within given constraints to convert one form of energy into another form of energy.</p>
6.6.2	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>            WHST.11-12.7 Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.</p>

## CONTENT STANDARD 7.0: UNDERSTANDING PLANT SCIENCE

Performance Indicators	Nevada Academic Content Standards
7.1.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b> HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.</p>
7.1.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b> HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.</p>
7.1.3	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b> HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.</p>

Performance Indicators	Nevada Academic Content Standards
7.1.4	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b> HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.</p>
7.1.5	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b> HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.</p>
7.1.6	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b> HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.</p>



Performance Indicators	Nevada Academic Content Standards
7.1.7	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b> HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.</p>
7.1.8	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b> HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.</p>
7.2.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.8 Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b> HS-LS1-5 Use a model to illustrate how photosynthesis transforms light energy into stored chemical energy.</p>

Performance Indicators	Nevada Academic Content Standards
7.2.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>                      RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Speaking and Listening Standards</b>                      SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>                      WHST.11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b>                      HS-LS1-7 Use a model to illustrate that cellular respiration is a chemical process whereby the bonds of food molecules and oxygen molecules are broken and the bonds in new compounds are formed resulting in a net transfer of energy.</p>
7.2.3	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>                      RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>                      WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b>                      HS-LS1-7 Use a model to illustrate that cellular respiration is a chemical process whereby the bonds of food molecules and oxygen molecules are broken and the bonds in new compounds are formed resulting in a net transfer of energy.</p>
7.2.4	<p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b>                      HS-LS1-7 Use a model to illustrate that cellular respiration is a chemical process whereby the bonds of food molecules and oxygen molecules are broken and the bonds in new compounds are formed resulting in a net transfer of energy.</p>

Performance Indicators	Nevada Academic Content Standards
7.3.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b> HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.</p>
7.3.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.3 Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.</p> <p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
7.3.3	<p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b> HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.</p>
7.3.4	<p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b> HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.</p>

Performance Indicators	Nevada Academic Content Standards
7.3.5	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.8 Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b> HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.</p>
7.3.6	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.8 Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b> HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.</p>

Performance Indicators	Nevada Academic Content Standards
7.4.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>  RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>  WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-Matter and Its Interactions</b>  HS-PS1-4 Develop a model to illustrate that the release or absorption of energy from a chemical reaction system depends upon the changes in total bond energy.</p>
7.4.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>  RST.11-12.8 Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p><b>English Language Arts: Speaking and Listening Standards</b>  SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>  WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-Matter and Its Interactions</b>  HS-PS1-4 Develop a model to illustrate that the release or absorption of energy from a chemical reaction system depends upon the changes in total bond energy.</p>

Performance Indicators	Nevada Academic Content Standards
7.4.3	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>  RST.11-12.8 Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p><b>English Language Arts: Speaking and Listening Standards</b>  SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>  WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-Matter and Its Interactions</b>  HS-PS1-4 Develop a model to illustrate that the release or absorption of energy from a chemical reaction system depends upon the changes in total bond energy.</p>
7.5.2	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>  WHST.11-12.7 Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.</p>

## CONTENT STANDARD 8.0: EXPLORING SOIL SCIENCE

Performance Indicators	Nevada Academic Content Standards
8.1.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.8 Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
8.1.4	<p><b>Science: HS-Earth's Systems</b> HS-ESS2-2 Analyze geoscience data to make the claim that one change to Earth's surface can create feedbacks that cause changes to other Earth systems.</p>
8.2.2	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.7 Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.</p>

## CONTENT STANDARD 9.0: EXPLORING ORNAMENTAL HORTICULTURE

Performance Indicators	Nevada Academic Content Standards
9.1.1	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>            WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
9.1.2	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>            WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
9.1.3	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>            WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
9.1.4	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>            WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
9.2.2	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>            WHST.11-12.7 Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.</p>



## CONTENT STANDARD 10.0: EXPLAIN BASIC SALES AND MARKETING CONCEPTS FOR AGRICULTURAL PRODUCTS

Performance Indicators	Nevada Academic Content Standards
10.1.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.7 Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.</p> <p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.1b Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience’s knowledge level, concerns, values, and possible biases.</p>
10.2.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.7 Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.</p> <p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.1b Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience’s knowledge level, concerns, values, and possible biases.</p>
10.3.2	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.7 Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.</p>

**CONTENT STANDARD 11.0: UNDERSTAND THE RELATIONSHIP BETWEEN AGRICULTURE AND NATURAL RESOURCE MANAGEMENT**

Performance Indicators	Nevada Academic Content Standards
11.1.2	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>            WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-Earth and Human Activity</b>            HS-ESS3-2 Evaluate competing design solutions for developing, managing, and utilizing energy and mineral resources based on cost-benefit ratios.</p>
11.1.3	<p><b>Science: HS-Earth and Human Activity</b>            HS-ESS3-2 Evaluate competing design solutions for developing, managing, and utilizing energy and mineral resources based on cost-benefit ratios.</p>
11.2.1	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>            WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-Earth and Human Activity</b>            HS-ESS3-3 Create a computational simulation to illustrate the relationships among management of natural resources, the sustainability of human populations, and biodiversity.</p>
11.2.2	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>            WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-Earth and Human Activity</b>            HS-ESS3-1 Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.</p>
11.2.3	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>            WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-Earth and Human Activity</b>            HS-ESS3-2 Evaluate competing design solutions for developing, managing, and utilizing energy and mineral resources based on cost-benefit ratios.</p> <p>HS-ESS3-4 Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.</p>

Performance Indicators	Nevada Academic Content Standards
11.3.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.7 Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.</p> <p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.1b Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience’s knowledge level, concerns, values, and possible biases.</p> <p><b>Science: HS-Earth and Human Activity</b> HS-ESS3-4 Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.</p>
11.4.2	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-Ecosystems: Interactions, Energy, and Dynamics</b> HS-LS2-8 Evaluate the evidence for the role of group behavior on individual and species’ chances to survive and reproduce.</p> <p><b>Science: HS-Hereditry: Inheritance and Variation of Traits</b> HS-LS3-2 Make and defend a claim based on evidence that inheritable genetic variations may result from: (1) new genetic combinations through meiosis, (2) viable errors occurring during replication, and/or (3) mutations caused by environmental factors.</p> <p><b>Science: HS-Biological Evolution: Unity and Diversity</b> HS-LS4-4 Construct an explanation based on evidence for how natural selection leads to adaptation of populations.</p>
11.4.3	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-Ecosystems: Interactions, Energy, and Dynamics</b> HS-LS2-6 Evaluate the claims, evidence, and reasoning that the complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions, but changing conditions may result in a new ecosystem.</p>

Performance Indicators	Nevada Academic Content Standards
11.4.4	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>            WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-Earth's Systems</b>            HS-ESS2-5 Plan and conduct an investigation of the properties of water and its effects on Earth materials and surface processes.            HS-ESS2-6 Develop a quantitative model to describe the cycling of carbon among the hydrosphere, atmosphere, geosphere, and biosphere.</p> <p><b>Science: HS-Ecosystems: Interactions, Energy, and Dynamics</b>            HS-LS2-4 Use mathematical representations to support claims for the cycling of matter and flow of energy among organisms in an ecosystem.            HS-LS2-5 Develop a model to illustrate the role of photosynthesis and cellular respiration in the cycling of carbon among the biosphere, atmosphere, hydrosphere, and geosphere.</p>
11.5.1	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>            WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
11.5.2	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>            WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
11.5.3	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>            WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-Earth's Systems</b>            HS-ESS2-2 Analyze geoscience data to make the claim that one change to Earth's surface can create feedbacks that cause changes to other Earth systems.</p>
11.6.1	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>            WHST.11-12.7 Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.</p>

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Performance Indicators	Nevada Academic Content Standards
11.6.2	<b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.7 Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

CONTENT STANDARD 12.0: EXPLORE THE STRUCTURE AND FUNCTION OF THE MAJOR ORGAN SYSTEMS OF LIVESTOCK

Performance Indicators	Nevada Academic Content Standards
12.1.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>                      RST.11-12.8 Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p><b>English Language Arts: Speaking and Listening Standards</b>                      SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>                      WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b>                      HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.</p>
12.1.2	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>                      WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b>                      HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.</p>
12.1.3	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>                      WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
12.2.1	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>                      WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b>                      HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.</p>

Performance Indicators	Nevada Academic Content Standards
12.2.2	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>            WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
12.3.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>            RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Speaking and Listening Standards</b>            SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>            WHST.11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b>            HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.</p>
12.3.2	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>            WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b>            HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.</p>
12.4.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>            RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>            WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b>            HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.</p>

Performance Indicators	Nevada Academic Content Standards
12.4.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b> HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.</p>
12.4.3	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.8 Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b> HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.</p>
12.5.1	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b> HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.</p>



Performance Indicators	Nevada Academic Content Standards
12.5.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.8 Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b> HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.</p>
12.5.3	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b> HS-LS1-1 Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells.</p>
12.5.4	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b> HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.</p>

Performance Indicators	Nevada Academic Content Standards
12.6.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>                      RST.11-12.8 Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p><b>English Language Arts: Speaking and Listening Standards</b>                      SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>                      WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b>                      HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.</p>
12.6.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>                      RST.11-12.8 Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p><b>English Language Arts: Speaking and Listening Standards</b>                      SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>                      WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b>                      HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.</p>

Performance Indicators	Nevada Academic Content Standards
12.6.3	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>  RST.11-12.8 Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p><b>English Language Arts: Speaking and Listening Standards</b>  SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>  WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b>  HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.</p>
12.6.4	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>  WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b>  HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.</p>

## CONTENT STANDARD 13.0: EXPLORE NUTRITIONAL REQUIREMENTS FOR LIVESTOCK

Performance Indicators	Nevada Academic Content Standards
13.1.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b> HS-LS1-6 Construct and revise an explanation based on evidence for how carbon, hydrogen, and oxygen from sugar molecules may combine with other elements to form amino acids and/or other large carbon-based molecules.</p>
13.1.2	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
13.1.3	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b> HS-LS1-7 Use a model to illustrate that cellular respiration is a chemical process whereby the bonds of food molecules and oxygen molecules are broken and the bonds in new compounds are formed resulting in a net transfer of energy.</p>

Performance Indicators	Nevada Academic Content Standards
13.1.4	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b> HS-LS1-6 Construct and revise an explanation based on evidence for how carbon, hydrogen, and oxygen from sugar molecules may combine with other elements to form amino acids and/or other large carbon-based molecules.</p>
13.1.5	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
13.1.6	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b> HS-LS1-3 Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis. HS-LS1-7 Use a model to illustrate that cellular respiration is a chemical process whereby the bonds of food molecules and oxygen molecules are broken and the bonds in new compounds are formed resulting in a net transfer of energy.</p>
13.2.2	<p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p>

Performance Indicators	Nevada Academic Content Standards
13.2.3	<p><b>English Language Arts: Speaking and Listening Standards</b>            SL.11-12.1c Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b>            HS-LS1-7 Use a model to illustrate that cellular respiration is a chemical process whereby the bonds of food molecules and oxygen molecules are broken and the bonds in new compounds are formed resulting in a net transfer of energy.</p>
13.2.4	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>            RST.11-12.3 Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.</p> <p><b>English Language Arts: Speaking and Listening Standards</b>            SL.11-12.1d Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.</p> <p><b>Math: Algebra – Creating Equations</b>            ACED.A.4 Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations.</p>

## CONTENT STANDARD 14.0: EXPLORING THE LIVESTOCK REPRODUCTIVE SYSTEMS

Performance Indicators	Nevada Academic Content Standards
14.1.1	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.9 Draw evidence from informational texts to support analysis, reflection, and research.</p> <p><b>Science: HS-Heredity: Inheritance and Variation of Traits</b> HS-LS3-2 Make and defend a claim based on evidence that inheritable genetic variations may result from: (1) new genetic combinations through meiosis, (2) viable errors occurring during replication, and/or (3) mutations caused by environmental factors.</p> <p>HS-LS3-3 Apply concepts of statistics and probability to explain the variation and distribution of expressed traits in a population.</p>
14.1.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>
14.2.1	<p><b>Science: HS-Heredity: Inheritance and Variation of Traits</b> HS-LS3-1 Ask questions to clarify relationships about the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring.</p>
14.2.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.8 Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-Heredity: Inheritance and Variation of Traits</b> HS-LS3-1 Ask questions to clarify relationships about the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring.</p>

Performance Indicators	Nevada Academic Content Standards
14.2.3	<p><b>English Language Arts: Speaking and Listening Standards</b></p> <p>SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.</p> <p>SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p>
14.3.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b></p> <p>RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b></p> <p>WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b></p> <p>HS-LS1-3 Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis.</p>
14.3.2	<p><b>English Language Arts: Speaking and Listening Standards</b></p> <p>SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.</p> <p>SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>Science: HS-Heredity: Inheritance and Variation of Traits</b></p> <p>HS-LS3-1 Ask questions to clarify relationships about the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring.</p> <p>HS-LS3-2 Make and defend a claim based on evidence that inheritable genetic variations may result from: (1) new genetic combinations through meiosis, (2) viable errors occurring during replication, and/or (3) mutations caused by environmental factors.</p> <p>HS-LS3-3 Apply concepts of statistics and probability to explain the variation and distribution of expressed traits in a population.</p>



Performance Indicators	Nevada Academic Content Standards
14.3.3	<p><b>English Language Arts: Speaking and Listening Standards</b></p> <p>SL.11-12.1c Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives.</p> <p>SL.11-12.1d Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b></p> <p>WHST.11-12.2d Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>

Performance Indicators	Nevada Academic Content Standards
14.3.4	<p><b>English Language Arts: Speaking and Listening Standards</b></p> <p>SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p>SL.11-12.2 Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.</p> <p>SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b></p> <p>WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-Heredity: Inheritance and Variation of Traits</b></p> <p>HS-LS3-1 Ask questions to clarify relationships about the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring.</p> <p>HS-LS3-2 Make and defend a claim based on evidence that inheritable genetic variations may result from: (1) new genetic combinations through meiosis, (2) viable errors occurring during replication, and/or (3) mutations caused by environmental factors.</p> <p>HS-LS3-3 Apply concepts of statistics and probability to explain the variation and distribution of expressed traits in a population.</p>
14.4.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b></p> <p>RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b></p> <p>WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>

Performance Indicators	Nevada Academic Content Standards
14.4.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>  RST.11-12.8 Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p><b>English Language Arts: Speaking and Listening Standards</b>  SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>  WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
14.4.3	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>  RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>  WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b>  HS-LS1-3 Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis.</p>

## CONTENT STANDARD 15.0: EXPLORE INHERITANCE AND THE GENETIC BASIS FOR ANIMAL SELECTION

Performance Indicators	Nevada Academic Content Standards
15.1.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
15.1.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-Heredity: Inheritance and Variation of Traits</b> HS-LS3-1 Ask questions to clarify relationships about the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring.</p>
15.1.3	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
15.1.4	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>

Performance Indicators	Nevada Academic Content Standards
<p>15.2.1</p>	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>                      RST.11-12.8 Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p><b>English Language Arts: Speaking and Listening Standards</b>                      SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>                      WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-Heredity: Inheritance and Variation of Traits</b>                      HS-LS3-2 Make and defend a claim based on evidence that inheritable genetic variations may result from: (1) new genetic combinations through meiosis, (2) viable errors occurring during replication, and/or (3) mutations caused by environmental factors.</p>
<p>15.2.2</p>	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>                      RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>                      WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b>                      HS-LS1-1 Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells.</p>

Performance Indicators	Nevada Academic Content Standards
15.2.3	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p> <p><b>Science: HS-Heredity: Inheritance and Variation of Traits</b> HS-LS3-1 Ask questions to clarify relationships about the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring.</p>
15.2.4	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p> <p><b>Science: HS-Heredity: Inheritance and Variation of Traits</b> HS-LS3-1 Ask questions to clarify relationships about the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring.</p>
15.2.5	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-Heredity: Inheritance and Variation of Traits</b> HS-LS3-3 Apply concepts of statistics and probability to explain the variation and distribution of expressed traits in a population.</p>

**CONTENT STANDARD 16.0: EXPLORING ANIMAL WELFARE AND ANIMAL PRODUCTION ISSUES IN TODAY'S SOCIETY**

Performance Indicators	Nevada Academic Content Standards
16.1.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.7 Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.</p> <p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.1b Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p>
16.1.2	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.7 Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.</p>
16.2.1	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
16.2.2	<p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.</p> <p>SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p>

Performance Indicators	Nevada Academic Content Standards
16.3.1	<p><b>English Language Arts: Speaking and Listening Standards</b></p> <p>SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p>SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p>
16.3.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b></p> <p>RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b></p> <p>WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
16.3.3	<p><b>English Language Arts: Speaking and Listening Standards</b></p> <p>SL.11-12.1c Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives.</p> <p>SL.11-12.1d Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.</p>



## CONTENT STANDARD 17.0: EVALUATE ANIMAL HEALTH

Performance Indicators	Nevada Academic Content Standards
17.1.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.8 Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
17.1.2	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.9 Draw evidence from informational texts to support analysis, reflection, and research.</p>
17.2.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
17.2.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.7 Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.</p> <p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.1b Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.</p>

Performance Indicators	Nevada Academic Content Standards
17.4.1	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.2 Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.9 Draw evidence from informational texts to support analysis, reflection, and research.</p>
17.4.3	<p><b>Science: HS-From Molecules to Organisms: Structures and Processes</b> HS-LS1-3 Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis.</p>
17.5.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p> <p><b>Science: HS-Ecosystems: Interactions, Energy, and Dynamics</b> HS-LS2-7 Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.</p>
17.5.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
17.5.3	<p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>

## CONTENT STANDARD 18.0: EXPLORE THE LIVESTOCK INDUSTRY

Performance Indicators	Nevada Academic Content Standards
18.1.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-Ecosystems: Interactions, Energy, and Dynamics</b> HS-LS2-8 Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce.</p>
18.1.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.7 Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.</p> <p><b>Science: HS-Ecosystems: Interactions, Energy, and Dynamics</b> HS-LS2-8 Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce.</p>
18.1.3	<p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.1c Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives.</p> <p>SL.11-12.1d Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.</p> <p><b>Science: HS-Ecosystems: Interactions, Energy, and Dynamics</b> HS-LS2-8 Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce.</p>
18.1.4	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.2 Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.</p> <p><b>Science: HS-Ecosystems: Interactions, Energy, and Dynamics</b> HS-LS2-8 Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce.</p>

Performance Indicators	Nevada Academic Content Standards
18.1.6	<p><b>English Language Arts: Speaking and Listening Standards</b></p> <p>SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p>SL.11-12.2 Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.</p> <p>SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p>
18.1.7	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b></p> <p>RST.11-12.8 Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p><b>English Language Arts: Speaking and Listening Standards</b></p> <p>SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b></p> <p>WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
18.2.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b></p> <p>RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b></p> <p>WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-Ecosystems: Interactions, Energy, and Dynamics</b></p> <p>HS-LS2-8 Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce.</p>

Performance Indicators	Nevada Academic Content Standards
18.2.3	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>  RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>  WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-Ecosystems: Interactions, Energy, and Dynamics</b>  HS-LS2-8 Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce.</p>
18.2.4	<p><b>English Language Arts: Speaking and Listening Standards</b>  SL.11-12.1c Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives.</p> <p>SL.11-12.1d Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.</p> <p><b>Science: HS-Ecosystems: Interactions, Energy, and Dynamics</b>  HS-LS2-8 Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce.</p>
18.2.6	<p><b>English Language Arts: Speaking and Listening Standards</b>  SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p>SL.11-12.2 Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.</p> <p>SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p>

Performance Indicators	Nevada Academic Content Standards
18.2.7	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>                      RST.11-12.8 Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p><b>English Language Arts: Speaking and Listening Standards</b>                      SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>                      WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
18.3.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>                      RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>                      WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-Ecosystems: Interactions, Energy, and Dynamics</b>                      HS-LS2-8 Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce.</p>
18.3.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>                      RST.11-12.2 Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.</p> <p><b>Science: HS-Ecosystems: Interactions, Energy, and Dynamics</b>                      HS-LS2-8 Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce.</p>

Performance Indicators	Nevada Academic Content Standards
18.3.3	<p><b>English Language Arts: Speaking and Listening Standards</b></p> <p>SL.11-12.1c Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives.</p> <p>SL.11-12.1d Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.</p> <p><b>Science: HS-Ecosystems: Interactions, Energy, and Dynamics</b></p> <p>HS-LS2-8 Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce.</p>
18.3.4	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b></p> <p>RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b></p> <p>WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
18.3.5	<p><b>English Language Arts: Speaking and Listening Standards</b></p> <p>SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p>SL.11-12.2 Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.</p> <p>SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p>

Performance Indicators	Nevada Academic Content Standards
18.3.6	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.8 Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
18.4.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-Ecosystems: Interactions, Energy, and Dynamics</b> HS-LS2-8 Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce.</p>
18.4.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.2 Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.</p> <p><b>Science: HS-Ecosystems: Interactions, Energy, and Dynamics</b> HS-LS2-8 Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce.</p>



Performance Indicators	Nevada Academic Content Standards
18.4.3	<p><b>English Language Arts: Speaking and Listening Standards</b></p> <p>SL.11-12.1c Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives.</p> <p>SL.11-12.1d Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.</p> <p><b>Science: HS-Ecosystems: Interactions, Energy, and Dynamics</b></p> <p>HS-LS2-8 Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce.</p>
18.4.5	<p><b>English Language Arts: Speaking and Listening Standards</b></p> <p>SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p>SL.11-12.2 Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.</p> <p>SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p>
18.4.6	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b></p> <p>RST.11-12.8 Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p><b>English Language Arts: Speaking and Listening Standards</b></p> <p>SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b></p> <p>WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>

Performance Indicators	Nevada Academic Content Standards
18.5.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-Ecosystems: Interactions, Energy, and Dynamics</b> HS-LS2-8 Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce.</p>
18.5.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.2 Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.</p> <p><b>Science: HS-Ecosystems: Interactions, Energy, and Dynamics</b> HS-LS2-8 Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce.</p>
18.5.3	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.2 Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.</p> <p><b>Science: HS-Ecosystems: Interactions, Energy, and Dynamics</b> HS-LS2-8 Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce.</p>
18.5.4	<p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.1c Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives.</p> <p>SL.11-12.1d Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.</p> <p><b>Science: HS-Ecosystems: Interactions, Energy, and Dynamics</b> HS-LS2-8 Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce.</p>

Performance Indicators	Nevada Academic Content Standards
18.5.5	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-Ecosystems: Interactions, Energy, and Dynamics</b> HS-LS2-8 Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce.</p>
18.5.7	<p><b>English Language Arts: Speaking and Listening Standards</b></p> <p>SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p>SL.11-12.2 Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.</p> <p>SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p>
18.6.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p><b>Science: HS-Ecosystems: Interactions, Energy, and Dynamics</b> HS-LS2-8 Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce.</p>

Performance Indicators	Nevada Academic Content Standards
18.6.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>                      RST.11-12.2 Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.</p> <p><b>Science: HS-Ecosystems: Interactions, Energy, and Dynamics</b>                      HS-LS2-8 Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce.</p>
18.6.3	<p><b>English Language Arts: Speaking and Listening Standards</b>                      SL.11-12.1c Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives.</p> <p>SL.11-12.1d Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.</p> <p><b>Science: HS-Ecosystems: Interactions, Energy, and Dynamics</b>                      HS-LS2-8 Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce.</p>
18.6.4	<p><b>English Language Arts: Speaking and Listening Standards</b>                      SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p>SL.11-12.2 Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.</p> <p>SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p>

Performance Indicators	Nevada Academic Content Standards
18.6.5	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>  RST.11-12.8 Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p> <p><b>English Language Arts: Speaking and Listening Standards</b>  SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>  WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>

## CONTENT STANDARD 19.0: DEVELOP A LOGICAL ARGUMENT FOR EVALUATION AND SELECTION OF ANIMALS

Performance Indicators	Nevada Academic Content Standards
19.1.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.3 Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.2d Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
19.1.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.3 Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.2d Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.</p> <p>WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>
19.1.3	<p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p>
19.1.4	<p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p>

Performance Indicators	Nevada Academic Content Standards
19.1.5	<p><b>English Language Arts: Speaking and Listening Standards</b>            SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p>
19.1.6	<p><b>English Language Arts: Speaking and Listening Standards</b>            SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p>

**CONTENT STANDARD 20.0: EXPLORE LAND STEWARDSHIP**

Performance Indicators	Nevada Academic Content Standards
20.1.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>                      RST.11-12.7 Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.</p> <p><b>English Language Arts: Speaking and Listening Standards</b>                      SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>                      WHST.11-12.1b Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience’s knowledge level, concerns, values, and possible biases.</p> <p><b>Science: HS-Earth and Human Activity</b>                      HS-ESS3-1 Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.</p> <p><b>Science: HS-Ecosystems: Interactions, Energy, and Dynamics</b>                      HS-LS2-8 Evaluate the evidence for the role of group behavior on individual and species’ chances to survive and reproduce.</p>
20.1.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b>                      RST.11-12.7 Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.</p> <p><b>English Language Arts: Speaking and Listening Standards</b>                      SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b>                      WHST.11-12.1b Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience’s knowledge level, concerns, values, and possible biases.</p> <p><b>Science: HS-Earth and Human Activity</b>                      HS-ESS3-1 Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.</p> <p><b>Science: HS-Ecosystems: Interactions, Energy, and Dynamics</b>                      HS-LS2-8 Evaluate the evidence for the role of group behavior on individual and species’ chances to survive and reproduce.</p>



## CONTENT STANDARD 21.0: EXAMINE MARKETING OF LIVESTOCK PRODUCTS

Performance Indicators	Nevada Academic Content Standards
21.1.1	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.7 Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.</p> <p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.1b Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience’s knowledge level, concerns, values, and possible biases.</p>
21.1.2	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.7 Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.</p> <p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.1b Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience’s knowledge level, concerns, values, and possible biases.</p>
21.1.3	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b> RST.11-12.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</p> <p><b>English Language Arts: Speaking and Listening Standards</b> SL.11-12.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p><b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>

Performance Indicators	Nevada Academic Content Standards
21.1.4	<p><b>English Language Arts: Reading Standards for Literacy in Science and Technical Subjects</b></p> <p>RST.11-12.3 Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.</p> <p><b>English Language Arts: Speaking and Listening Standards</b></p> <p>SL.11-12.1d Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.</p>

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**CONTENT STANDARD 22.0: EXPLORE CAREER OPPORTUNITIES IN THE ANIMAL SCIENCE INDUSTRY**

Performance Indicators	Nevada Academic Content Standards
22.1.1	<b>English Language Arts: Writing Standards for Literacy in Science and Technical Subjects</b> WHST.11-12.7 Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

**ALIGNMENT OF ANIMAL SYSTEMS STANDARDS  
AND THE MATHEMATICAL PRACTICES**

Mathematical Practices	Animal Systems Performance Indicators
1. Make sense of problems and persevere in solving them.	13.2.4 15.1.1 19.1.2 21.1.3
2. Reason abstractly and quantitatively.	13.2.4 15.1.1 18.1.4 20.1.2
3. Construct viable arguments and critique the reasoning of others.	15.1.1 19.1.1-19.1.6 20.1.2
4. Model with mathematics.	13.2.1, 13.2.4 15.2.5 19.1.2 20.1.2 21.1.1-21.1.4
5. Use appropriate tools strategically.	13.2.4 15.2.5 19.1.2 21.1.3
6. Attend to precision.	13.2.4 15.1.1 19.1.2 21.1.1-21.1.4
7. Look for and make use of structure.	13.2.1 15.1.1
8. Look for and express regularity in repeated reasoning.	15.1.1 19.1.1-19.1.6 20.1.2

**ALIGNMENT OF ANIMAL SYSTEMS STANDARDS  
AND THE SCIENCE AND ENGINEERING PRACTICES**

Science and Engineering Practices	Animal Systems Performance Indicators
1. Asking questions (for science) and defining problems (for engineering).	2.2.1; 2.3.1; 6.1.2-6.1.4; 6.3.1; 6.4.2; 7.2.4; 7.3.2; 7.4.1 8.1.3, 8.1.4; 11.1.2, 11.1.3; 11.2.3; 11.3.1; 12.1.3; 12.6.4 13.1.3, 13.1.4, 13.1.6; 13.2.2-13.2.4; 14.1.2; 14.2.3 14.3.2-14.3.4; 14.4.3; 15.1.1; 17.2.1, 17.2.2; 17.3.3; 17.5.3 18.1.3, 18.1.4; 18.2.4; 18.3.3; 18.4.3; 18.5.3-18.5.5, 18.6.3 20.1.1, 20.1.2
2. Developing and using models.	2.1.3, 2.1.4; 5.1.3; 6.1.4; 6.2.4; 6.5.2; 7.2.3; 7.3.2; 7.4.1, 8.1.3 11.1.3, 11.1.2; 11.2.1; 11.3.1; 11.4.4; 12.1.3; 12.2.1; 12.3.1 12.6.4; 13.1.6; 13.2.4; 14.2.1; 15.1.1; 15.2.5; 17.3.1; 17.4.2 17.5.3; 18.1.4, 18.1.5; 18.2.5; 18.3.4; 18.4.4; 18.5.3-18.5.6 18.5.6; 19.1.1, 19.1.2; 20.1.1, 20.1.2
3. Planning and carrying out investigations.	7.3.5; 12.6.4; 17.5.3
4. Analyzing and interpreting data.	11.2.3; 13.1.4, 13.1.6; 14.4.3; 15.1.1; 17.5.3
5. Using mathematics and computational thinking.	13.2.1, 13.2.4; 15.2.5; 19.1.2; 20.1.2; 21.1.1-21.1.4
6. Constructing explanations (for science) and designing solutions (for engineering).	5.1.1, 5.1.3; 6.1.1-6.1.3; 7.1.2, 7.1.4, 7.1.6, 7.1.8; 7.2.3; 7.3.1 11.2.2; 11.4.2; 12.3.1, 12.5.4; 13.1.1; 14.1.2; 15.2.3, 15.2.4 17.5.1
7. Engaging in argument from evidence.	19.1.1-19.1.6
8. Obtaining, evaluating, and communicating information.	5.3.1, 5.3.3; 7.4.1; 8.1.3; 11.1.2; 11.4.4; 12.1.3; 13.1.4, 13.2.4 15.1.1; 15.2.5; 16.3.2; 17.2.1; 17.5.2; 19.1.1-19.1.6

**CROSSWALKS OF ANIMAL SYSTEMS STANDARDS  
AND THE COMMON CAREER TECHNICAL CORE**

Agriculture, Food, and Natural Resources Career Cluster	Performance Indicators
1. Analyze how issues, trends, technologies and public policies impact systems in the Agriculture, Food, and Natural Resources Career Cluster™.	2.1.1-2.1.5; 2.2.1-2.2.3 2.3.1, 2.3.2; 6.2.4; 15.1.3 16.1.1, 16.1.2; 16.2.1 16.2.2; 16.3.1-16.3.3 18.1.4; 18.2.4; 18.3.3 18.4.3; 18.5.3; 18.6.3
2. Evaluate the nature and scope of the Agriculture, Food, and Natural Resources Career Cluster™ and the role of agriculture, food, and natural resources (AFNR) in society and the economy.	2.1.1-2.1.5; 2.2.1-2.2.3 2.3.1, 2.3.2; 16.1.1, 16.1.2 16.2.1, 16.2.2 16.3.1-16.3.3
3. Examine and summarize the importance of health, safety and environmental management systems in AFNR businesses.	6.5.1, 6.5.2; 16.1.1 16.1.2 16.2.1, 16.2.2; 16.3.1-16.3.3, 17.1.1, 17.1.2, 17.2.1, 17.2.2, 17.3.1-17.3.3 17.4.1-17.4.3 17.5.1-17.5.3
4. Demonstrate stewardship of natural resources in AFNR activities.	11.1.1-11.1.3 11.2.1-11.2.3; 11.3.1 11.4.1-11.4.4 11.5.1-11.5.3 20.1.1, 20.1.2
5. Describe career opportunities and means to achieve those opportunities in each of the Agriculture, Food, and Natural Resources Career Pathways.	6.6.2; 7.5.2; 8.2.2; 9.2.2 10.3.2; 11.6.1, 11.6.2 22.1.1
6. Analyze the interaction among AFNR systems in the production, processing and management of food, fiber and fuel and the sustainable use of natural resources.	18.1.3, 18.1.4; 18.2.4 18.3.3; 18.4.3; 18.5.3 18.6.3

Animal Systems Career Pathway	Performance Indicators
1. Analyze historic and current trends impacting the animal systems industry.	2.1.1-2.1.5; 2.2.1-2.2.3 2.3.1, 2.3.2; 6.2.4; 15.1.3 16.1.1, 16.1.2; 16.2.1 16.2.2; 16.3.1-16.3.3 18.1.4; 18.2.4; 18.3.3 18.4.3; 18.5.3; 18.6.3
2. Utilize best-practice protocols based upon animal behaviors for animal husbandry and welfare.	14.2.3; 14.3.1-14.3.4 16.1.1, 16.1.2; 16.2.1 16.2.2; 16.3.1-16.3.3
3. Design and provide proper animal nutrition to achieve desired outcomes for performance, development, reproduction and/or economic production.	13.1.1-13.1.6 13.2.1-13.2.4
4. Apply principles of animal reproduction to achieve desired outcomes for performance, development and/or economic production.	14.1.1, 14.1.2 14.2.1, 14.2.2 14.2.3; 14.3.1-14.3.4, 15.1.1; 19.1.2
5. Evaluate environmental factors affecting animal performance and implement procedures for enhancing performance and animal health.	17.1.1, 17.1.2; 17.4.3 17.5.1; 18.1.2; 18.2.3 18.3.2; 18.4.2; 18.5.2 18.6.2
6. Classify, evaluate, and select animals based on anatomical and physiological characteristics.	6.2.1-6.2.4; 15.1.1-15.1.4 19.1.1-19.1.6
7. Apply principles of effective animal health care.	17.1.1, 17.1.2, 17.2.1 17.2.2, 17.3.1, 17.3.3 17.4.1-17.4.3 17.5.1-17.5.3