

AGRI-SCIENCE III

Animal Science

Overview

Agri-Science III students will focus on those areas of interest they have developed over the previous two years and concentrate on developing skills more specific to those areas of interest. All Agri-Science curriculum is aligned with the national Agriculture, Food, and Natural Resources (AFNR) standards.

Agribusiness Systems (ABS) —the study of business principles, including management, marketing and finance, and their application to enterprises engaged in Agriculture, Food and Natural Resources

Agricultural Mechanics/Power, Structural and Technical Systems (PST)—the study of agricultural equipment, power systems, alternative fuel sources and precision technology, as well as woodworking, metalworking, welding and project planning for agricultural structures

Animal Science/Animal Systems (AS)—the study of animal systems, including life processes, health, nutrition, genetics, management and processing, through the study of small animals, aquaculture, livestock, dairy, horses and/or poultry

Environmental Service Systems (ESS)—the study of systems, instruments and technology used in waste management and their influence on the environment

Food Products and Processing Systems (FPP)—the study of product development, quality assurance, food safety, production, sales and service, regulation and compliance, and food service within the food science industry

Natural Resource Systems (NRS)—the study of the management of soil, water, wildlife, forests and air as natural resources

Horticulture/Plant Systems (PS)—the study of plant life cycles, classifications, functions, structures, reproduction, media and nutrients, as well as growth and cultural practices, through the study of crops, turf grass, trees and shrubs and/or ornamental plants

Note that the AFNR standards pathways do not indicate aquaculture as an independent pathway. Aquaculture standards are drawn from various pathways, most notably Animal Systems.

Students are expected to follow a specific course of study related to their career interests and goals that will prepare them for further study after high school or direct entry into the workplace. Some students may elect to pursue study in two diverse areas. Course selection is developed with the assistance of the SAE advisors and classroom teachers.

Agri-Science III students will continue to have opportunities to further develop leadership skills through participation in the FFA. Students at this stage are encouraged to participate in FFA Career Development Events (CDEs) in order to further develop skills.

Animal Science is a curriculum designed for students who are interested in careers working with animals. The selection, care, management of companion animals and domestic farm animals, animal nutrition, reproduction, heredity and health management are emphasized in this specialized area. Animal science students have the opportunity to focus on the management and skill sets necessary to work safely and effectively with various species of animals and livestock. Classroom work is enriched through use of the animal facilities that are designed to provide students with real-world experiences related to their major field of study.

Agri-Science III animal science students have the opportunity to earn their American Red Cross Pet First Aid and Kennel Assistant Certificates. The Veterinary Science I class is a prerequisite for Veterinary Science II through which Agri-Science IV students have the option of testing for the Veterinary Assistant Certificate.

ECE Companion Animal Care and Management, and ECE Animal Behavior and Training are taught concurrently with Agri-Science III animal science classes. Those students who take the ECE classes will follow the same course rotation as those students who are following the animal science track, however, assignments and rigor may differ. Students who wish to enroll as ECE students must do so during the registration period in the spring prior to the start of the school year.

Small Animal Focus

Units
Veterinary Science I
ECE Companion Animal Care and Management
Kennel Management
ECE Animal Behavior and Training

Large Animal Focus

Units
Veterinary Science I or Kennel Management
Introduction to Equine Management
Livestock Management
Dairy Management

Title: Agri-Science II Supervised Agricultural Experience (SAE)

Unit Overview: SAE is a vital aspect of agricultural education. As part of Agri-Science I & II students have explored their options and developed work experience programs suitable for young students exploring agriculture as a career. Students have learned how to keep records and the best methods for documenting their day to day work as well as their progress. By the end of Agri-Science II students have developed and implemented a clear plan for supervised work experience relating to their interests and career goals.

Agri-Science III students are expected to demonstrate increased responsibility and new learning relative to their SAEs. Through advanced SAE work, students may be more involved in starting and operating their own businesses or taking employment in agriculturally-related enterprises. It is strongly recommended that students apply for local and state FFA proficiency awards as well as the FFA State Degree.

SAE advisors work with individual students, parents, work-site mentors, and employers to ensure student activities are appropriate, meet student needs, and are in compliance with state labor laws. All students work with their SAE advisors to complete the Universal Structured Work-Based Learning Plan. In addition, some students must complete the Connecticut Department of Labor forms LED 75-1 (Workplace Learning Experiences for Minor Students in Hazardous Occupations) or the LED 31-23 (Workplace Learning Experiences for Minor Students Ages 14 or 15 in Non-Hazardous Occupations), or Unpaid Work Experience forms.

Suggested Time: On-going

Ledyard High School Expectations for Student Learning:

Read and write critically and effectively for a variety of purposes
Speak clearly and communicate ideas accurately in a variety of settings
Demonstrate critical thinking skills

Agriculture, Food, and Natural Resources Standards:

- CS.01.01.07.c** Evaluate actions taken and make appropriate modifications to personal goals.
- CS.01.03.02.c.** Create a plan of action to complete a task based on a conceptualized idea
- CS.01.06.03.c** Use problem solving strategies to solve a professional or personal issue
- CS.01.06.05.c** Implement a plan to develop new knowledge and skills related to professional and personal aspirations
- CS.02.03.03.c.** Demonstrate employability skills for a specific career
- CS.03.01.01.b.** Select the appropriate form of technical and business writing or communication for a specific situation.

CS.03.02.03.b. Practice ethical behaviors.

CS.07.04.01.c. Apply general workplace safety precautions/procedures.

CS.08.01.01.c. Use tools and equipment appropriately to complete a specific task.

ABS.03.01.01.a Maintain production and agri-business records

Common Core State Standards

RST.11-12.4 Determine the meaning of words and phrases as they are used in text, including analyzing how an author uses and refines the meaning of a key term over the course of a text

WHST.11-12.1.e Provide a concluding statement or section that follows from or supports the argument presented.

WHST.11-12.2a Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension

WHST.11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience

MP 6 Attend to precision

Objectives	Required Activities/ Suggested Activities	AFNR Standards/CCSS
Implement planned improvements to enhance or improve work experience program	<ul style="list-style-type: none"> • Develop and expand work experience activities/projects in line with career goals • Write SMART goals for SAE improvement over the year 	CS.01.01.07.c CS.01.03.02.c CS.01.06.03.c CS.01.06.05.c CS.02.03.03.c. ABS.03.01.01.a RST.11-12.4 WHST.11-12.4
Accurately (or independently) complete appropriate work experience forms utilizing AFNR standards	<ul style="list-style-type: none"> • Identify key skills necessary to complete the Structured Work-Based Learning Form using AFNR standards • Complete appropriate CT Departments of Labor and Education forms for student work experience independently 	CS.01.06.05.c CS.02.03.03.b. CS.03.01.01.b. WHST.9-10.4
Demonstrate effective and appropriate work skills	<ul style="list-style-type: none"> • Work safely and effectively • Document safe handling of equipment, plants, and animals 	CS.01.06.03.c CS.02.03.03.c. CS.01.06.05.c

	<ul style="list-style-type: none"> Demonstrate appropriate workplace skills such as time management, interpersonal skills, organization, communication, technology and tool use, and problem solving 	CS.03.02.03.b. CS.07.04.01.c. CS.08.01.01.c. ABS.03.01.01.a RST.11-12.4 WHST.11-12.4
Develop and maintain clear records	<ul style="list-style-type: none"> Document time spent in activities, skills learned, income, and expenses Keep all SAE records in a well-organized binder Provide evidence of work using photographs, videos, and journals Meet with SAE advisor weekly during the school year and at least once during the summer Set up/organize appointments with SAE advisor and employer/supervisor/parent 	CS.02.03.03.c. CS.03.01.01.b. ABS.03.01.01.a RST.11-12.4 WHST.11-12.1.e WHST.11-12.2a WHST.11-12.4

Vocabulary

- | | |
|--|---|
| <ul style="list-style-type: none"> 501(c)(3) Entrepreneurship Hazardous Occupations Liability Non-Profit Entity | <ul style="list-style-type: none"> Paid Placement Structured Work-Based Learning Plan Volunteer Worker's Compensation Work-site Mentor |
|--|---|

Assessments:

- Weekly record checks
- Monthly and annual summaries
- On-site visits by advisor in coordination with parent/supervisor/employer
- SAE rubrics

Resources/Materials:

- AFNR Standards
- Binder and record sheets
- SDE/SDOL employment forms

Title: Veterinary Science I

Unit Overview: Students will learn how to protect pet owners and their pets from harm, injury, or suffering during emergencies, by learning prompt, effective actions and care that will safeguard the life of an injured pet. Students will learn how to recognize emergencies, restrain animals, perform CPR, abdominal thrusts, rescue breathing and bandage wounds. Students will learn veterinary abbreviations and common feline and canine diseases and will use them in case studies. Students will perform physical examinations on the school animals. Through successful completion of this course students will be able to earn American Red Cross Pet First Aid certificate.

Although this is can be viewed as a stand-alone unit that will provide basic first aid skills for any animal science student it is a necessary prerequisite for students who wish to pursue further study in Veterinary Science II.

Suggested Time: One quarter

Ledyard High School Expectations for Student Learning:

- Employ problem-solving skills effectively

Agriculture, Food, and Natural Resources Standards:

- CS.01.01.01.a** Work productively with a group or independently
- CS.02.03.03.b** Develop skills required for a specific career
- CS.06.02.01.a** Use proper safety practices/personal protective equipment
- CS.07.02.01.c** Complete a recognized industry-level first aid training program
- CS.08.01.01.c** Use tools and equipment appropriately to complete a specific task
- AS.03.01.01.b** Perform simple health-check evaluations on animals
- AS.03.01.02.a** Identify common diseases, parasites and physiological disorders that affect animals
- AS.03.01.05.c** Implement zoonotic disease prevention methods and procedures for the safe handling and treatment of animals
- AS.06.01.01.c** Interpret animal behaviors and execute protocols for safe handling of animals
- AS.08.02.01.c** Establish and maintain favorable environmental conditions for animal growth and performance

Common Core State Standards:

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.

WHST 11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose and audience

RST 11-12.4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics.

Objectives	Required Activities/ Suggested Activities	AFNR Standards/CCSS
Explore veterinary science careers	<ul style="list-style-type: none"> • Discuss and outline the roles and responsibilities of the veterinary medical team. 	RST 11-12.4 WHST 11-12.4
Identify and select the first aid supplies needed to treat animal injuries.	<ul style="list-style-type: none"> • Create a personal pet first aid kit that includes the materials and supplies for an animal emergency. 	CS.07.02.01.c RST 11-12.4
Outline and explain the emergency action steps for animal emergencies.	<ul style="list-style-type: none"> • Create a skit demonstrating how to react to a variety of animal emergencies. • In writing, differentiate between approaching a sick or injured pet as opposed to a healthy pet. 	CS.07.02.01.c WHST 11-12.4
Demonstrate the methods of safety restraints for cats and dogs.	<ul style="list-style-type: none"> • Perform safety restraints on animals that include: muzzling, lateral recumbency, hugging restraint, stretch restraint, kneeling restraint and application of an Elizabethan collar to a cat or dog. 	CS.01.01.01.a CS.02.03.03.b CS.06.02.01.a CS.07.02.01.c CS.08.01.01.c AS.06.01.01.c RST 11-12.4
Assess animal health through a physical examination.	<ul style="list-style-type: none"> • Read the packet and determine normal baseline readings for a variety of animal species • Perform physical examinations on the school animals. • Use veterinary tools and equipment safely and correctly. • Compare and contrast the results from the 	CS.01.01.01.a CS.02.03.03.b CS.06.02.01.a CS.07.02.01.c CS.08.01.01.c AS.03.01.01.b AS.06.01.01.c WHST 11-12.4

	<p>physical examination on the animal species observed at school.</p> <ul style="list-style-type: none"> • Evaluate the school animals for ill health and document the findings from the physical examination on a medical chart. • Analyze the results from the physical examination and determine if the animal needs to see a veterinarian. 	RST 11-12.4
Identify the veterinary abbreviations and other domain-specific words for animals.	<ul style="list-style-type: none"> • Use veterinary abbreviations appropriately when discussing animals. • Read and interpret a medical chart • Enter physical examination information into a medical chart 	CS.01.01.01.a RST 11-12.4 WHST.11-12.2d
Demonstrate appropriate first aid treatment or life-saving skills	<ul style="list-style-type: none"> • Perform rescue breathing, cardiopulmonary resuscitation and abdominal thrusts on a CPR dog and rescue breathing cat. • Read and apply information for determining when an animal requires rescue breathing, CPR and/or abdominal thrusts • Demonstrate how to bandage animal wounds. • Identify five common types of animal wounds. • Identify and use the appropriate materials to bandage a wound. • Read and demonstrate how to properly bandage five animal wounds. 	CS.01.01.01.a CS.02.03.03.b CS.06.02.01.a CS.07.02.01.c CS.08.01.01.c AS.06.01.01.c RST 11-12.4
Identify and diagnose a pet disorder	<ul style="list-style-type: none"> • Create a disease factsheet. • Read a veterinary scenario and highlight the important facts about the animal's symptoms. • Create a list of potential diseases/conditions that the animal could have based on student generated factsheets • Identify the most probable disease/condition based on criteria given in a scenario • Differentiate among the different types of 	CS.01.01.01.a AS.03.01.02.a WHST.11-12.2d WHST 11-12.4 RST 11-12.4

	diseases that affect cat and dog species	
Demonstrate proper health care, cleaning and handling of animals.	<ul style="list-style-type: none"> • Feed, water, provide health care, maintain clean/sanitary living conditions and handle school animals. 	CS.01.01.01.a CS.02.03.03.b CS.06.02.01.a AS.03.01.05.c AS.06.01.01.c AS.08.02.01.c

Italicized items indicate technology use

Vocabulary:

- | | | |
|--|---|---|
| <ul style="list-style-type: none"> • Abdominal thrust • Bordetella vaccine • DHLPPC vaccine • Elizabethan collar • FVRCP-C vaccine • Hugging restraint • Kneeling restraint | <ul style="list-style-type: none"> • Laceration • Lateral recumbency • Muzzle • Progress notes • Reclining restraint • Signalment • SOAP notes | <ul style="list-style-type: none"> • Stretch restraint • Tourniquet • Toxoplasmosis • Triage • Veterinarian • Veterinary technician |
|--|---|---|

Assessments:

- Class assignments
- Safety restraint evaluation
- Bandaging evaluation
- Appraising the situation evaluation
- Rescue breathing, CPR, and abdominal thrusts evaluation
- Veterinary abbreviation quizzes and evaluation
- Unit test

Resources/Materials:

- Bandaging material
- CPR/Rescue breathing dog and cat
- Thermometer
- Live animals
- Veterinary Science I Workbook, teacher produced
- Stethoscope
- “*Pet Emergency First Aid for Cats & Dogs*” Video, ASPCA

Title: ECE Companion Animal Care and Management

Unit Overview:

This course will give students the opportunity to expand their knowledge on companion animal care and management through developing skills and competencies to care for their own animals as well as to qualify for an entry level position in a kennel, pet shop, and a veterinary hospital. Basic concepts will include: safety, domestication, ethical issues, nutrition, physiology, health and management of companion animals.

Suggested Time: One quarter

Ledyard High School Expectations for Student Learning:

Employ problem-solving skills effectively

Agriculture, Food, and Natural Resources Standards:

- CS.01.01.01.c** Work independently and in group settings to accomplish a task
- CS.01.05.01.c** Articulate current issues that are important to the local, state, national and global communities
- CS.02.02.02.c** Present oneself appropriately in various settings
- CS.02.03.03.b** Develop skills required for a specific career
- CS.03.02.03.c** Examine an ethical dilemma and prepare an argument for a position
- CS.06.02.01.a** Use proper safety practices/personal protective equipment
- CS.07.02.01.b** Use first aid knowledge and procedures relevant to a particular situation
- CS.08.01.01.c** Use tools and equipment appropriately to complete a specific task
- AS.01.01.01.b** Evaluate and describe characteristics of animals that developed in response to the animals' environment and led to their domestication
- AS.02.01.01.c** Classify animals according to the taxonomical classification system
- AS.02.03.01.b** Compare and contrast desirable anatomical and physiological characteristics of animals within and between species
- AS.03.01.01.b** Perform simple health-check evaluations on animals
- AS.03.01.02.a** Identify common diseases, parasites and physiological disorders that affect animals
- AS.04.01.01.c** Select appropriate feedstuffs for animals based on factors such as economics, digestive system and nutritional needs
- AS.06.01.01.c** Interpret animal behaviors and execute protocols for safe handling of animals
- AS.08.02.01.c** Establish and maintain favorable environmental conditions for animal growth and performance

Common Core State Standards:

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.

WHST 11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose and audience

RST 11-12.4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics.

SL.11.-12.4 Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.

Objectives	Required Activities/ Suggested Activities	AFNR Standards/CCSS
Explore companion animal careers	<ul style="list-style-type: none"> • Discuss and outline the roles and responsibilities of companion animal careers 	RST 11-12.4
Trace the domestication of a companion animal	<ul style="list-style-type: none"> • Create a domestication map for studied companion animal • Explain how indicated companion animal became a household pet 	CS.01.01.01.c AS.01.01.01.b AS.02.01.01.c WHST 11-12.4 RST 11-12.4
Outline appropriate companion animal safety	<ul style="list-style-type: none"> • Create a word cloud for companion animal safety • Create a safety chart for studied companion animal • Demonstrate proper hygiene and sanitation 	CS.01.01.01.c CS.02.03.03.b WHST.11-12.2d WHST 11-12.4 RST 11-12.4
Describe and demonstrate key factors in companion animal management	<ul style="list-style-type: none"> • Identify the steps to be a responsible pet owner • Create a Venn diagram to compare and contrast reptiles and amphibians • Design and present a lesson on pocket pets and exotic mammals • Research the cat breeding and showing standards from <i>The International Cat Association (TICA) website</i> • Choose a breed of dog suited for a certain 	CS.01.01.01.c CS.02.02.02.c CS.02.03.03.b CS.06.02.01.a CS.08.01.01.c AS.01.01.01.b AS.02.01.01.c AS.02.03.01.b AS.03.01.02.a AS.04.01.01.c

	<p>lifestyle from the <i>Canine Breed Selector website</i></p> <ul style="list-style-type: none"> • Identify common companion animal diseases and parasites • Set up and maintain a companion animal habitat • Create a pamphlet on the nutrition and care needed for studied companion animals • Compare anatomical systems of companion animals studied in class 	<p>AS.08.02.01.c WHST.11-12.2d WHST 11-12.4 RST 11-12.4 SL.11.-12.4</p>
Assess companion animals through a physical examination.	<ul style="list-style-type: none"> • Read physical exam document and determine what baseline readings are for studied companion animals. • Perform a physical examination on a companion animal • Use veterinary tools and equipment safely and correctly. • Evaluate a companion animal for external parasites and skin disorders. • Record the results on the companion animal's health report. 	<p>CS.01.01.01.c CS.02.02.02.c CS.02.03.03.b CS.06.02.01.a CS.07.02.01.b CS.08.01.01.c AS.02.03.01.b AS.03.01.01.b AS.03.01.02.a AS.06.01.01.c WHST 11-12.4 RST 11-12.4</p>
Demonstrate proper feeding, watering, health care, cleaning and handling of animals	<ul style="list-style-type: none"> • Feed animals according to their nutritional requirements. • Monitor and replenish water supply as directed using the appropriate water container. • Properly store animal feed in specified bins. • Interpret animal behavior while safely and humanely handling animals 	<p>CS.01.01.01.c CS.02.02.02.c CS.02.03.03.b CS.06.02.01.a CS.07.02.01.b CS.08.01.01.c AS.03.01.02.a AS.04.01.01.c AS.06.01.01.c AS.08.02.01.c</p>
Level 1 students		
Evaluate and discuss ethical and/or current issues regarding companion animals	<ul style="list-style-type: none"> • Conduct on-line research of an ethical or current issue regarding companion animals • Write a persuasive essay on selected issue 	<p>CS.01.01.01.c CS.01.05.01.c CS.02.02.02.c</p>

	<ul style="list-style-type: none"> • Cite sources appropriately • Take a clear stand on an ethical and/or current companion animal issue • Write and deliver a 5 minute speech and present to peers • Present differing viewpoints on issue clearly and without bias 	CS.03.02.03.c WHST.11-12.2d WHST 11-12.4 RST 11-12.4 SL.11-12.4
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Italicized items indicate technology use

Vocabulary:

- Aviculture
- Binomial nomenclature
- Occlusion
- Preen
- Reservoir
- SOAP notes
- Trinomial nomenclature

Assessments:

- Lab activities
- Class assignments
- Tests
- Quizzes
- Ethical Issue Presentation
- Guest presentation/field trip reflections

Resources/Materials:

- www.tica.org
- www.animalplanet.com/breed-selector/dog-breeds.html
- Small Animal Care & Management, Dean M. Warren
- Exotic Animal Care & Management, Vicki Judah; Kathy Nuttall
- Ethical Issue Rubric
- Companion animals
- Animal care supplies and feed
- “Puppy Mills”, Dateline video

ANSC 1676-800 ECE/UCONN: Introduction to Companion Animal Management

Instructor: Mrs. Devon O'Keefe
Class Period: 4A & 4B
Classroom: Animal Science
Ledyard High School
Class Length: Quarter
Email: do'keefe@ledyard.net
Office Phone: 860-464-9600 ext. 7161

COURSE DESCRIPTION:

An introductory course for students interested in the care and management of companion animals. Basic concepts will include : nutrition, physiology, health and management for animals.

TEXT : Small Animal Care & Management 3rd Edition

Dean M. Warren 2010
ISBN : 978-4180-4105-2

Exotic Animal Care & Management

Vicki Judah, Kathy Nuttall 2008
ISBN : 978-1-4180-4198-4

Other materials will be presented as class handouts.

COURSE OBJECTIVES : The students will be able to :

1. Describe the management, nutritional requirements, health care, anatomy, reproduction and genetics of various companion animals.
2. Evaluate and discuss ethical and/or current issues regarding companion animals.
3. Handle and care for classroom companion animals.
4. Attend in class field trips to local companion animal businesses such as humane society, pet store, animal control office, or an animal shelter.
5. Design a small business plan involving companion animals.
6. Perform simple health check evaluations on animals

7. Establish and maintain favorable environmental conditions
8. Interpret animal behaviors and execute protocols for safe handling

COURSE TOPICS:

Tentative Schedule:

Week 1- What is a companion animal?, Careers, Safety with working with animals, domestication

Week 2- Animal Diseases

Week 3- Reptiles & Amphibians

- *Anatomy & Physiology*
- *Nutrition*
- *Reproduction & Genetics*
- *Health & Disease*
- *Management, Breed ID & Safety*

Week 4 & 5- Pocket Pets & Exotic Mammals

- *Anatomy & Physiology*
- *Nutrition*
- *Reproduction & Genetics*
- *Health & Disease*
- *Management, Breed ID & Safety*

Exam #1

Week 6- Dogs

- *Anatomy & Physiology*
- *Nutrition*
- *Reproduction & Genetics*
- *Health & Disease*
- *Management, Breed ID & Safety*

Week 7- Cats

- *Anatomy & Physiology*
- *Nutrition*
- *Reproduction & Genetics*
- *Health & Disease*

- *Management, Breed ID & Safety*

Week 8- Fish & Birds

- *Anatomy & Physiology*
- *Nutrition*
- *Reproduction & Genetics*
- *Health & Disease*
- *Management, Breed ID & Safety*

Exam #2

Week 9-Presentations of Ethical or Current Issue Regarding Companion Animals

Cumulative Final Exam

STUDENT RESPONSIBILITIES:

Have FUN!

Respect others

All school rules apply

Clean up after yourself in the classroom and lab

No perfume or body sprays to be sprayed in the classroom or labs

REQUIRED MATERIALS:

Class: Notebook with folder/pockets, or a 3-ring binder with notebook paper. Writing utensil (s)

Lab: Long pants and close-toed/close-heeled shoes (boots, sneakers, etc.-no dress shoes) for all experiences in the animal lab, outdoors and with equipment.

Homework: Internet access, writing utensil (s)

GRADING:

Ethical or Current Issue Presentation- 100 points

2 Exams- 200 points

Cumulative Final Exam- 100 points

Companion Animal Reflection Paper- 50 points

Discussion Assignments- 50 points

500 Total Points

MISSED WORK:

It will be the student's responsibility to obtain missed assignments and to complete them. If you miss an activity, quiz or lab activity, arrangements must be made with Mrs. O'Keefe within one week of the missed assignment.

LATE WORK:

Late work will receive a deduction of 10% of points per day and will not be accepted if it is more than one week late.

CONSEQUENCES FOR INAPPROPRIATE BEHAVIORS:

- Verbal Warning
- Reduction of Participation Grade Points
- Calling or Emailing Parents
- Removal from Class
- Detention
- Conference with administrator, parent, student and teacher

Should you or your parent or guardian need assistance, email me at **do'keefe@ledyard.net**

If you need academic assistance I will be available every Tuesday from 2:30-3:15

Title: Kennel Management

Unit Overview:

This course provides students with the opportunity to explore the field of kennel management and develop skills and competencies appropriate to an entry level position in a dog kennel, dog grooming facility, animal control agency or animal shelter. Canine breeds, domestication, diseases, parasites and training techniques will be explored. Students will groom a variety of dogs, and run a canine day camp. Students will complete the requirements that may qualify them to earn the Animal Care Technologies Kennel Assistant Certificate.

Suggested Time: One quarter

Ledyard High School Expectations for Student Learning:

Employ problem-solving skills effectively

Agriculture, Food, and Natural Resources Standards:

- CS.01.01.01.c** Work independently and in group settings to accomplish a task
- CS.02.02.02.c** Present oneself appropriately in various settings
- CS.02.03.03.b** Develop skills required for a specific career
- CS.08.01.01.c** Use tools and equipment appropriately to complete a specific task
- AS.02.03.01.a** Identify ways an animal's health can be affected by anatomical and physiological disorders
- AS.03.01.01.b** Perform simple health-check evaluations on animals
- AS.03.01.02.a** Identify common diseases, parasites and physiological disorders that affect animals
- AS.06.01.01.c** Interpret animal behaviors and execute protocols for safe handling of animals
- AS.08.02.01.c** Establish and maintain favorable environmental conditions for animal growth and performance

Common Core State Standards:

- 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.
- WHST 11-12.4** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose and audience
- RST 11-12.4** Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics.

Objectives	Required Activities/ Suggested Activities	AFNR Standards/CCSS
Categorize the canine breeds	<ul style="list-style-type: none"> • Compare and contrast the breeds of dogs and indicate to which dog group they belong • Create a canine domestication map • Describe the health risks and diseases common to specific breeds of dogs 	CS.01.01.01.c AS.02.03.01.a AS.03.01.02.a WHST.11-12.2d WHST.11-12.4 RST.11-12.4
Select tools and equipment used with grooming and training dogs.	<ul style="list-style-type: none"> • Identify and use dog grooming and training tools and equipment appropriately. 	CS.02.02.02.c CS.08.01.01.c RST 11-12.4
Identify common canine parasites and diseases	<ul style="list-style-type: none"> • Conduct on-line research of canine parasites and diseases and create factsheets to share with the class • Recognize the symptoms of external parasites and skin disorders in dogs 	AS.02.03.01.a AS.03.01.02.a WHST.11-12.2d WHST 11-12.4 RST 11-12.4
Demonstrate basic dog training skills	<ul style="list-style-type: none"> • Evaluate dog behavior while using the canine aptitude test and dog bite assessment • Demonstrate how to train a dog using basic commands 	CS.01.01.01.c CS.02.03.03.b AS.06.01.01.c AS.08.02.01.c RST 11-12.4
Bathe and groom dogs appropriately	<ul style="list-style-type: none"> • Read breed specific grooming recommendations • Groom dogs according to breed specific recommendations • Use proper procedure for lifting and positioning dogs • Demonstrate safe, humane handling of dogs • Record the completed grooming on the customer invoice and journal • Generate a dog grooming bill 	CS.01.01.01.c CS.02.02.02.c CS.02.03.03.b CS.08.01.01.c AS.06.01.01.c WHST.11-12.2d WHST 11-12.4 RST 11-12.4
Assess a dog's health through a physical examination.	<ul style="list-style-type: none"> • Read and research a normal baseline reading for dogs. • Perform a physical examination on a dog • Use veterinary tools and equipment safely 	CS.01.01.01.c CS.02.02.02.c CS.02.03.03.b CS.08.01.01.c AS.03.01.01.b

	<p>and correctly.</p> <ul style="list-style-type: none"> • Identify canine muscles and bones • Evaluate a dog for external parasites and skin disorders. • Record the results on the dog's health report. 	<p>AS.03.01.02.a AS.06.01.01.c WHST.11-12.2d WHST 11-12.4 RST 11-12.4</p>
<p>Demonstrate proper feeding, watering, health care, cleaning and handling of animals.</p>	<ul style="list-style-type: none"> • Feed, water, provide medical care, clean cages and handle dogs safely. 	<p>CS.01.01.01.c CS.02.03.03.b CS.08.01.01.c AS.02.03.01.a AS.06.01.01.c AS.08.02.01.c</p>

Italicized items indicate technology use

Vocabulary:

- | | | |
|--|---|---|
| <ul style="list-style-type: none"> • Anthelmintic • Behavior • Conditioning • Defensive submission | <ul style="list-style-type: none"> • Ectoparasite • Endoparasite • Ethology • Husbandry | <ul style="list-style-type: none"> • Passive submission • Temperament |
|--|---|---|

Assessments:

- Quizzes
- Tests
- Dog Grooming Assessment

Resources/Materials:

- *Pet Handling Basics*, The Paragon Pet Styling Series Video, Melissa Verplank
- *Canine Anatomy*, The Paragon Pet Styling Series Video, Melissa Verplank
- *Bring out the Shine in Your Canine*, Rise and Shine Canines Video, Gail Mirabella
- All About Dog Daycare.. A Blueprint for Success, Robin Bennett, 2005
- Kennels & Kenneling, A guide for professionals and hobbyists, Joel M. McMains, 2001
- An Introduction to Dog Agility, Margaret H. Bonham, 2000
- The Stone Guide to Dog Grooming For All Breeds, Ben & Pearl Stone, 1981
- The Simple Guide to Grooming your Dog, Eve Adamson & Sandy Roth, 2003
- Dog Massage, MaryJean Ballner, 2001
- Dogs

- Dog shampoo and conditioner
- Grooming tools and equipment
- Dog grooming tub

Title: ECE Animal Behavior and Training

Unit Overview:

This course will give students the opportunity to apply the knowledge of cattle, horse, sheep, goat, swine, poultry, cat and dog behavior to their management, training and welfare. Basic principles of genetics and physiology of behavior, perception, training, learning, motivation, and stress with consideration of integrated behavioral management will be covered. Students will maintain a training log and will present their findings.

Suggested Time: One quarter

Ledyard High School Expectations for Student Learning:

Employ problem-solving skills effectively

Agriculture, Food, and Natural Resources Standards:

- CS.01.01.01.a** Work productively with a group or independently
- CS.01.01.03.c** Implement an effective project plan
- CS.01.01.04.c** Create resources to complete an action or project
- CS.02.02.02.c** Present oneself appropriately in various settings
- CS.02.03.03.c** Demonstrate employability skills for a specific career
- CS.02.04.02.c** Implement effective problem solving skills
- CS.03.02.03.b** Practice ethical behaviors
- CS.06.02.01.a** Use proper safety practices/personal protective equipment
- CS.08.01.01.c** Use tools and equipment appropriately to complete a specific task
- AS.01.01.02.b** Outline the development of the animal industry and the resulting products, services and careers
- AS.02.03.01.a** Identify ways an animal's health can be affected by anatomical and physiological disorders
- AS.02.03.02.b** Assess an animal to determine if it has reached its optimal performance level based on anatomical and physiological characteristics
- AS.05.01.01.b** Describe the functions of major organs in the male and female reproductive systems
- AS.06.01.01.c** Interpret animal behaviors and execute protocols for safe handling of animals
- AS.06.01.02.a** Explain the implications of animal welfare and animal rights for animal agriculture

Common Core State Standards:

- 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.

WHST 11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose and audience

RST 11-12.4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics.

SL.11.-12.4 Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.

Objectives	Required Activities/ Suggested Activities	AFNR Standards/CCSS
Identify the ways in which an animal behaves	<ul style="list-style-type: none"> • Explain in writing how the animal cycles, development & behavior, sexual behavior and social systems affect an animal's behavior. • Observe school animals and formulate a response to the behavior it is presenting. • Using a Venn diagram, compare and contrast two animal species behavior. • Create a domestication map for a companion or livestock animal. • Apply the principles of ethology to understand animal welfare problems. 	CS.01.01.01.a AS.01.01.02.b AS.02.03.01.a AS.06.01.01.c WHST.11-12.2d WHST 11-12.4 RST 11-12.4
Explain the basics of normal and abnormal behavior in domestic animals	<ul style="list-style-type: none"> • Assess companion animal and livestock animal behavior through feeding, drinking, eliminative, sleeping, grooming and exploratory behavior. • Conduct on-line research of a companion or livestock animal behavior • Create and present in writing on studied animal that includes the: Purpose, Evolution of Behavior, Nervous System & Behavior, Biological Clocks, Migration, Orientation, Navigation, Hormones & Behavior, Cognition, Emotion, Consciousness, Mating Systems, Parental Care, Neonatal Behavior, Habitat Selection, Conflict and Thwarting, Aggression and Fear. 	CS.01.01.01.a AS.02.03.01.a AS.05.01.01.b AS.06.01.01.c WHST.11-12.2d WHST 11-12.4 RST 11-12.4 SL.11.-12.4

	<ul style="list-style-type: none"> Differentiate between normal and abnormal behavior in companion and livestock animals. 	
Demonstrate proper health care, cleaning and handling of animals.	<ul style="list-style-type: none"> Feed, water, provide health care, maintain clean/sanitary living conditions and handle school animals. 	CS.01.01.01.a CS.02.02.02.c CS.06.02.01.a AS.06.01.01.c
Level 1 students		
Train a companion or livestock animal	<ul style="list-style-type: none"> Apply psychological principles to animal management and training Predict how studied animal will behave at the conclusion of the training session. Use animal behavior terms appropriately when discussing and training animals. Observe and interpret an animal's behavior. Enter animal behavior information into a behavior report. Outline and plan a daily training schedule. Select appropriate training tools and equipment for studied animal. Lead an animal through a five step course. Collect and categorize training <i>data</i>. Interpret results and evaluate their applicability to domestic animal management 	CS.01.01.01.a CS.01.01.03.c CS.01.01.04.c CS.02.02.02.c CS.02.03.03.c CS.02.04.02.c CS.03.02.03.b CS.06.02.01.a CS.08.01.01.c AS.02.03.02.b AS.06.01.01.c WHST.11-12.2d WHST 11-12.4 RST 11-12.4
Write a 5 minute speech and present to peers	<ul style="list-style-type: none"> Deliver a 5 minute presentation. Present training and behavior report clearly on studied animal. 	CS.01.01.01.a CS.02.02.02.c AS.02.03.02.b AS.06.01.01.c SL.11.-12.4

Italicized items indicate technology use

Vocabulary:

- Allelomimetic
- Circadian rhythm
- Consummatory
- Epimeletic
- Ethology
- External Stimuli
- Operant behavior

Assessments:

- Animal Training Project
- Tests
- Quizzes
- Laboratory/Discussion Write-Ups

Resources/Materials:

- Canine and Feline Behavior and Training, Linda P. Case
- Don't Shoot the Dog-The New Art of Teaching and Training. Revised edition. ,Karen Pryor
- Principles and Applications of Domestic Animal Behavior. 2008, Edward O. Price
- Animals
- Treats
- Training tools/equipment

ANSC 1602-800 ECE/UCONN: Behavior and Training of Domestic Animals

Instructor: Mrs. Devon O'Keefe
Class Period: 4A & 4B
Classroom: Animal Science
Ledyard High School
Class Length: Quarter
Email: do'keefe@ledyard.net
Office Phone: 860-464-9600 ext. 7161

COURSE DESCRIPTION:

Application of behavior or cattle, horses, sheep, goats, swine, poultry, cats and dogs to their management, training and welfare. Basic principles of genetics and physiology of behavior, perception, training, learning, motivation, and stress with consideration of integrated behavioral management.

TEXT : Canine and Feline Behavior and Training

Linda P. Case
ISBN : 978-1-4283-1053-7

Don't Shoot the Dog-The New Art of Teaching and Training. Revised edition.

Karen Pryor
ISBN : 0-553-38039-7

Principles and Applications of Domestic Animal Behavior. 2008

Edward O. Price
ISBN : 978-1-84593-398-2

Other materials will be presented as class handouts.

COURSE OBJECTIVES : The students will be able to :

1. Understand the basics of normal and abnormal behavior in domestic animals and learn to apply psychological principles to animal management and training.
2. Interpret research results and evaluate their applicability to domestic animal management.

3. Understand how to apply the principles of ethology to solve animal welfare problems.

COURSE TOPICS:

Week 1- Introduction

- Adaptive Purpose
- Evolution of Behavior
- Nervous System & Behavior

Week 2- Animal Cycles

- Biological Clocks
- Migration, Orientation, Navigation
- Hormones & Behavior

Exam #1

Week 3- Development & Behavior

- Learning in Animals
- Cognition, Emotion, Consciousness
- Animal Communication

Week 4- Sexual Behavior

- Mating Systems
- Parental Care
- Neonatal Behavior

Exam #2

Week 5- Social Systems

- Habitat Selection
- Feeding, Drinking and Eliminative Behavior
- Sleep and Grooming, Exploratory Behaviors
- Conflict and Thwarting
- Aggression and Fear
- Ethology & Pest Control

Week 6 - Avian Flock & Carnivore Behavior

Week 7- Non- Ruminant Behavior

Exam #3

Week 8- Ruminant Behavior

Week 9- Presentations

Cumulative Final Exam

STUDENT RESPONSIBILITIES:

Have FUN!

Respect others

All school rules apply

Clean up after yourself in the classroom and lab

No perfume or body sprays to be sprayed in the classroom or labs

REQUIRED MATERIALS:

Class: Notebook with folder/pockets, or a 3-ring binder with notebook paper. Writing utensil (s)

Lab: Long pants and close-toed/close-heeled shoes (boots, sneakers, etc.-no dress shoes) for all experiences in the animal lab, outdoors and with equipment.

Homework: Internet access, writing utensil (s)

GRADING:

Student Animal Training Project- 100 points

Scientific Paper Review- 50 points

3 Exams- 300 points

Cumulative Final Exam- 100 points

Laboratory/Discussion Write-Ups/Class Assignments- 100 points

650 Total Points

MISSED WORK:

It will be the student's responsibility to obtain missed assignments and to complete them. If you miss an activity, quiz or lab activity, arrangements must be made with Mrs. O'Keefe within one week of the missed assignment.

LATE WORK:

Late work will receive a deduction of 10% of points per day and will not be accepted if it is more than one week late.

CONSEQUENCES FOR INAPPROPRIATE BEHAVIORS:

Verbal Warning

Reduction of Participation Grade Points

Calling or Emailing Parents

Removal from Class

Detention

Conference with administrator, parent, student and teacher

END PRODUCT:

Trained Animal

Scientific Paper

Should you or your parent or guardian need assistance, email me at **do'keefe@ledyard.net**

If you need academic assistance I will be available every Tuesday from 2:30-3:15

Title: Dairy Management and Products

Unit Overview:

This unit will provide students with information and skills helpful for work and activities in the dairy industry. It will focus on raising replacement heifers from birth to lactation, milk synthesis and dairy products.

Suggested Time: One quarter

Ledyard High School Expectations for Student Learning:

Employ problem-solving skills effectively

Agriculture, Food, and Natural Resources Standards:

- CS.01.01.01.c** Work independently and in group settings to accomplish a task
- CS.01.05.01.c** Articulate current issues that are important to the local, state, national and global communities
- CS.02.02.02.c** Present oneself appropriately in various settings
- CS.02.03.03.b** Develop skills required for a specific career
- CS.03.02.03.c** Examine an ethical dilemma and prepare an argument for a position
- CS.06.02.01.a** Use proper safety practices/personal protective equipment
- CS.07.02.01.b** Use first aid knowledge and procedures relevant to a particular situation
- CS.08.01.01.c** Use tools and equipment appropriately to complete a specific task
- AS.01.01.01.b** Evaluate and describe characteristics of animals that developed in response to the animals' environment and led to their domestication
- AS.02.01.01.c** Classify animals according to the taxonomical classification system
- AS.02.03.01.b** Compare and contrast desirable anatomical and physiological characteristics of animals within and between species
- AS.03.01.01.b** Perform simple health-check evaluations on animals
- AS.03.01.02.a** Identify common diseases, parasites and physiological disorders that affect animals
- AS.04.01.01.c** Select appropriate feedstuffs for animals based on factors such as economics, digestive system and nutritional needs
- AS.06.01.01.c** Interpret animal behaviors and execute protocols for safe handling of animals
- AS.08.02.01.c** Establish and maintain favorable environmental conditions for animal growth and performance
- FPP.01.01.01.b.** Evaluate changes and trends in the food products and processing industry.
- FPP.01.02.02.a.** Explain the importance and usage of industry standards in food products and processing.
- FPP.02.03.01.a.** Explain techniques and procedures for the safe handling of food products.

FPP.03.01.04.a. Discuss common food constituents (e.g., proteins, carbohydrates, fats, vitamins, minerals).

Common Core State Standards:

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.

WHST 11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose and audience

RST 11-12.4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics.

SL.11.-12.4 Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.

MP1 Make sense of problems and persevere in solving them

MP 4 Model with mathematics

MP 6 Attend to precision

Objectives	Required Activities/ Suggested Activities	AFNR Standards/CCSS
Handle dairy cattle safely	<ul style="list-style-type: none"> • Create a safety chart for handling and caring for dairy cattle • Demonstrate proper hygiene and sanitation • Utilize equipment specific to dairy cattle safely and effectively • Exhibit proper handling of calves and heifers 	CS.01.01.01.c CS.02.03.03.b WHST.11-12.2d WHST 11-12.4 RST 11-12.4
Describe key factors in dairy cattle production and management.	<ul style="list-style-type: none"> • Identify the six most popular breeds of dairy cattle and cite characteristics specific to each • Outline steps for effectively raising dairy cattle from birth to lactation • Identify common dairy cattle diseases and parasites and suggest protocols for prevention and treatment 	CS.02.02.02.c CS.06.02.01.a CS.08.01.01.c AS.01.01.01.b AS.02.01.01.c AS.02.03.01.b AS.03.01.02.a

		AS.04.01.01.c AS.08.02.01.c WHST.11-12.2d WHST 11-12.4 RST 11-12.4 SL.11.-12.4
Calculate a balanced ration	<ul style="list-style-type: none"> Using nutrition tables and feed charts, calculate an appropriate ration for dairy cattle at various stages of growth Choose feeds appropriate and safe for cattle Develop a feeding schedule appropriate to cattle 	AS.04.01.02.c RST 11-12.4 MP1 MP 4 MP 6
Evaluate and discuss ethical and/or current trends and issues regarding the production of dairy cattle and the consumption of milk and dairy products.	<ul style="list-style-type: none"> Conduct an on-line research on a current or ethical issue regarding the dairy industry Write a persuasive essay on selected issue 	CS.01.01.01.c CS.01.05.01.c CS.02.02.02.c CS.03.02.03.c WHST.11-12.2d WHST 11-12.4 RST 11-12.4
Assess the health of young dairy cattle and suggest appropriate treatment.	<ul style="list-style-type: none"> Perform a physical examination on dairy calves and heifers Use veterinary tools and equipment safely and correctly. 	CS.01.01.01.c CS.02.02.02.c CS.02.03.03.b CS.06.02.01.a CS.07.02.01.b CS.08.01.01.c AS.02.03.01.b AS.03.01.01.b AS.03.01.02.a AS.06.01.01.c WHST 11-12.4

		RST 11-12.4
Evaluate dairy cattle conformation	<ul style="list-style-type: none"> • Label the external parts of a dairy cow • Evaluate individual dairy animals for their conformation to the “ideal” • Give written or verbal reasons for assessment 	AS.02.03.01.b. WHST 11-12.4 RST 11-12.4 SL.11.-12.4
Demonstrate proper feeding, watering, health care, cleaning and handling of dairy cattle.	<ul style="list-style-type: none"> • Feed animals according to their nutritional requirements. • Monitor and replenish water supply • Properly store animal feed • Interpret animal behavior while safely and humanely handling animals 	CS.01.01.01.c CS.02.02.02.c CS.02.03.03.b CS.06.02.01.a CS.07.02.01.b CS.08.01.01.c AS.03.01.02.a AS.04.01.01.c AS.06.01.01.c AS.08.02.01.c
Compare and contrast various dairy products	<ul style="list-style-type: none"> • Describe the processes of homogenization and pasteurization • Analyze and describe in writing the composition, characteristics and production of butter, cheese, yogurt and ice cream 	FPP.01.01.01.b FPP.01.02.02.a FPP.02.03.01.a FPP.03.01.04.a WHST 11-12.4
Explore careers in the dairy industry.	<ul style="list-style-type: none"> • Discuss the requisites and rewards of careers in the dairy industry. 	RST 11-12.4 WHST 11-12.4

Italicized items indicate technology use

Vocabulary:

- Adrenalin
- Alveoli
- Annular rings
- Antibodies
- Bulk tank
- Butterfat
- Casein
- Curd
- Cwt (hundred weight)
- Dry period
- Globule
- Homogenization
- Inflation
- Iodine tincture
- Lactation
- Lactose
- Lumen
- Mastitis
- Milk let-down
- Milk Secreting Epithelial Cell
- Navel-ill
- Oxytocin
- Pasteurization
- Pulsator
- Rennet
- Skim
- *Staphylococcus aureus*
- *Streptococcus agalactiae*
- Teat Cistern
- Udder Cistern
- Whey

Assessments:

- Lab activities
- Class assignments
- Tests
- Quizzes
- Guest presentation/field trip reflections

Resources/Materials:

- Animals kept at Ag Center
- Feed: concentrates and roughages
- Modern Livestock and Poultry Production, Gillespie, J.R.
- Dairy Science, Ensminger, M.E.
- Principles of Food Science, Ward, J.D.
- Introduction to Food Science, Parker, R.

Title: Introduction to Equine Management

Unit Overview:

This unit will provide students with information and skills helpful for the care and management of horses. The course will focus on the basic anatomy and physiology of the horse and will include topics as breeds, colors, markings, teeth and aging, foot and leg structure and care, gaits and defects in “the way of going” characteristics of a healthy horse and horse conformation.

Suggested Time: One quarter

Ledyard High School Expectations for Student Learning:

Employ problem-solving skills effectively

Agriculture, Food, and Natural Resources Standards:

- CS.01.01.01.c** Work independently and in group settings to accomplish a task
- CS.01.05.01.c** Articulate current issues that are important to the local, state, national and global communities
- CS.02.02.02.c** Present oneself appropriately in various settings
- CS.02.03.03.b** Develop skills required for a specific career
- CS.03.02.03.c** Examine an ethical dilemma and prepare an argument for a position
- CS.06.02.01.a** Use proper safety practices/personal protective equipment
- CS.07.02.01.b** Use first aid knowledge and procedures relevant to a particular situation
- CS.08.01.01.c** Use tools and equipment appropriately to complete a specific task
- AS.01.01.01.b** Evaluate and describe characteristics of animals that developed in response to the animals’ environment and led to their domestication
- AS.02.01.01.c** Classify animals according to the taxonomical classification system
- AS.02.03.01.b** Compare and contrast desirable anatomical and physiological characteristics of animals within and between species
- AS.03.01.01.b** Perform simple health-check evaluations on animals
- AS.03.01.02.a** Identify common diseases, parasites and physiological disorders that affect animals
- AS.04.01.01.c** Select appropriate feedstuffs for animals based on factors such as economics, digestive system and nutritional needs
- AS.06.01.01.c** Interpret animal behaviors and execute protocols for safe handling of animals
- AS.08.02.01.c** Establish and maintain favorable environmental conditions for animal growth and performance

Common Core State Standards:

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.

WHST 11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose and audience

RST 11-12.4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics.

SL.11.-12.4 Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.

MP1 Make sense of problems and persevere in solving them

MP 4 Model with mathematics

MP 6 Attend to precision

Objectives	Required Activities/ Suggested Activities	AFNR Standards/CCSS
Handle horses safely.	<ul style="list-style-type: none"> • Create a safety chart for handling and caring horses • Demonstrate proper hygiene and sanitation • Use equipment safely and effectively 	CS.01.01.01.c CS.02.03.03.b WHST.11-12.2d WHST 11-12.4 RST 11-12.4
Demonstrate an understanding of the horse as a domestic animal	<ul style="list-style-type: none"> • Label the external parts, selected bones and teeth of a horse. • Name the external and internal parts of the horse's leg and foot • Measure the height and estimate the weight of a horse • Identify various types, classes and breeds of horses • Describe various horse colors and markings 	CS.02.02.02.c CS.06.02.01.a CS.08.01.01.c AS.01.01.01.b AS.02.01.01.c AS.02.03.01.b AS.03.01.02.a AS.04.01.01.c AS.08.02.01.c

	<ul style="list-style-type: none"> • Describe the natural gaits of a horse • Identify common defects in the way of going • Identify common equine diseases and parasites 	MP! MP4 MP6 WHST.11-12.2d WHST 11-12.4 RST 11-12.4 SL.11.-12.4
Calculate a balanced ration for horses	<ul style="list-style-type: none"> • Using nutrition tables and feed charts, calculate an appropriate ration for an individual horse • Choose feeds appropriate and safe for horse • Develop a feeding schedule appropriate to horses 	AS.04.01.02.c RST 11-12.4 MP1 MP 4 MP 6
Evaluate and discuss current issues regarding horse use and handling.	<ul style="list-style-type: none"> • Conduct on-line research on a current issue regarding the horse industry • Write a position statement on the selected issue 	CS.01.01.01.c CS.01.05.01.c CS.02.02.02.c CS.03.02.03.c WHST.11-12.2d WHST 11-12.4 RST 11-12.4
Assess equine health and suggest appropriate protocol for signs of disease or illness.	<ul style="list-style-type: none"> • Identify characteristics of a healthy horse • Perform a physical examination on a horse • Use veterinary tools and equipment safely and correctly. • Create a protocol for dealing with sick horses • Evaluate the horse for internal and external parasites and skin disorders and suggest appropriate prevention and treatment 	CS.01.01.01.c CS.02.02.02.c CS.02.03.03.b CS.06.02.01.a CS.07.02.01.b CS.08.01.01.c AS.02.03.01.b AS.03.01.01.b AS.03.01.02.a AS.06.01.01.c

		WHST 11-12.4 RST 11-12.4
Evaluate horse conformation	<ul style="list-style-type: none"> • Evaluate individual horses for their conformation to the “ideal” • Give written or verbal reasons for assessment 	AS.02.03.01.b. WHST 11-12.4 RST 11-12.4 SL.11.-12.4
Discuss proper feeding, watering, health care, cleaning and handling of horses	<ul style="list-style-type: none"> • Feed animals according to their nutritional requirements. • Monitor and replenish water supply as directed using the appropriate water container. • Properly store animal feed in specified bins. • Interpret animal behavior while safely and humanely handling animals 	CS.01.01.01.c CS.02.02.02.c CS.02.03.03.b CS.06.02.01.a CS.07.02.01.b CS.08.01.01.c AS.03.01.02.a AS.04.01.01.c AS.06.01.01.c AS.08.02.01.c
Explore careers in the equine industry.	<ul style="list-style-type: none"> • Discuss the requisites and rewards of careers in the equine industry. 	RST 11-12.4 WHST 11-12.4 RST 11-12.4

Italicized items indicate technology use

Vocabulary:

- Canter
- Clinch
- Colic
- Cupping
- Deciduous teeth
- Diagonal
- Dwelling
- Eohippus
- Equus caballus
- Floating
- Forging
- Founder
- Frog white line
- Gait
- Gallop
- Hand
- Interfering
- Laminitis
- Lead
- Monkey mouth
- Navicular disease
- Overo
- Pace
- Paddling
- Parrot mouth
- Points
- Pounding
- Rolling
- Stringhalt
- Tobiano
- Trappy
- Trot
- Winging
- Wolf teeth

Assessments:

- Lab activities
- Class assignments
- Tests
- Quizzes
- Guest presentation
- Field trips/farm visits

Resources/Materials:

- Feed: concentrates and roughages
- The Horse, Evans.
- Equine Science, Ensminger, M.E.
- Video: Basic Horseshoeing Principles, Butler Publishing and Tools
- Video: Horse Judging, Creative Educational Video

Title: Livestock Management

Unit Overview:

This unit will provide students with information and skills helpful for the raising, caring and managing livestock used for food production. The course will focus on beef cattle, sheep, pigs and poultry. Part of the unit will also include forage crop production, selection and storage.

Suggested Time: One quarter

Ledyard High School Expectations for Student Learning:

Employ problem-solving skills effectively

Agriculture, Food, and Natural Resources Standards:

- CS.01.01.01.c** Work independently and in group settings to accomplish a task
- CS.01.05.01.c** Articulate current issues that are important to the local, state, national and global communities
- CS.02.02.02.c** Present oneself appropriately in various settings
- CS.02.03.03.b** Develop skills required for a specific career
- CS.03.02.03.c** Examine an ethical dilemma and prepare an argument for a position
- CS.06.02.01.a** Use proper safety practices/personal protective equipment
- CS.07.02.01.b** Use first aid knowledge and procedures relevant to a particular situation
- CS.08.01.01.c** Use tools and equipment appropriately to complete a specific task
- AS.01.01.01.b** Evaluate and describe characteristics of animals that developed in response to the animals' environment and led to their domestication
- AS.02.01.01.c** Classify animals according to the taxonomical classification system
- AS.02.03.01.b** Compare and contrast desirable anatomical and physiological characteristics of animals within and between species
- AS.03.01.01.b** Perform simple health-check evaluations on animals
- AS.03.01.02.a** Identify common diseases, parasites and physiological disorders that affect animals
- AS.04.01.01.c** Select appropriate feedstuffs for animals based on factors such as economics, digestive system and nutritional needs
- AS.06.01.01.c** Interpret animal behaviors and execute protocols for safe handling of animals
- AS.08.02.01.c** Establish and maintain favorable environmental conditions for animal growth and performance
- FPP.04.02.03.b.** Discuss desirable qualities of grain, legume and oilseed products.
- FPP.04.03.06.b.** Select methods and conditions for storing raw and processed food products

PS.03.05.03.b. Explain the proper conditions to maintain the quality of plants and plant products held in storage.

Common Core State Standards:

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.

WHST 11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose and audience

RST 11-12.4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics.

SL.11.-12.4 Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.

MP1 Make sense of problems and persevere in solving them

MP 4 Model with mathematics

MP 6 Attend to precision

Objectives	Required Activities/ Suggested Activities	AFNR Standards/CCSS
Outline steps in the production of hay and silage.	<ul style="list-style-type: none"> • List the steps that are part of the process of the production of grass and legume hay and corn, grass and legume silage. • Create a flow chart of the forage crop production steps and the concerns and care needed at each. 	PS.03.05.03.b. WHST.11-12.2d RST 11-12.4
Evaluate and select good quality forage crops.	<ul style="list-style-type: none"> • Identify characteristics of good quality forage crops. • Select superior examples from various samples of roughages. 	FPP.04.02.03.b. FPP.04.03.06.b.
Handle livestock safely	<ul style="list-style-type: none"> • Create a safety chart for handling and caring for livestock 	CS.01.01.01.c CS.02.03.03.b

	<ul style="list-style-type: none"> • Demonstrate proper hygiene and sanitation • Safely and humanely handle livestock • Use equipment safely and effectively 	WHST.11-12.2d WHST 11-12.4 RST 11-12.4
Describe key factors in livestock production and management.	<ul style="list-style-type: none"> • Identify various breeds of beef cattle, sheep, pigs and poultry • Outline steps for effectively raising livestock from birth to harvest. • Identify common livestock diseases and parasites 	CS.02.02.02.c CS.06.02.01.a CS.08.01.01.c AS.01.01.01.b AS.02.01.01.c AS.02.03.01.b AS.03.01.02.a AS.04.01.01.c AS.08.02.01.c WHST.11-12.2d WHST 11-12.4 RST 11-12.4 SL.11.-12.4
Calculate a balanced ration	<ul style="list-style-type: none"> • Using nutrition tables and feed charts, calculate an appropriate ration for an individual animal. 	RST 11-12.4 MP1 MP 4 MP 6
Evaluate and discuss ethical and/or current issues regarding livestock production and the consumption of meat.	<ul style="list-style-type: none"> • Conduct on-line research a livestock or food system ethical and/or current issue • Write a persuasive essay on selected issue 	CS.01.01.01.c CS.01.05.01.c CS.02.02.02.c CS.03.02.03.c WHST.11-12.2d WHST 11-12.4 RST 11-12.4
Assess livestock health and suggest appropriate protocol.	<ul style="list-style-type: none"> • Perform a physical examination on the various species of livestock • Use veterinary tools and equipment safely and 	CS.01.01.01.c CS.02.02.02.c CS.02.03.03.b

	<p>correctly.</p> <ul style="list-style-type: none"> Evaluate the livestock animal for internal and external parasites and suggest appropriate prevention and treatment. 	<p>CS.06.02.01.a CS.07.02.01.b CS.08.01.01.c AS.02.03.01.b AS.03.01.01.b AS.03.01.02.a AS.06.01.01.c WHST 11-12.4 RST 11-12.4</p>
Evaluate livestock conformation	<ul style="list-style-type: none"> Label the external parts of various livestock species Evaluate individual animals for their conformation to the “ideal” Give written or verbal reasons for assessment 	<p>AS.02.03.01.b. WHST.11-12.2d SL.11.-12.4</p>
Demonstrate proper feeding, watering, health care, cleaning and handling of animals	<ul style="list-style-type: none"> Feed animals according to their nutritional requirements. Monitor and replenish water supply as directed using the appropriate water container. Properly store animal feed in specified bins. Interpret animal behavior while safely and humanely handling animals 	<p>CS.01.01.01.c CS.02.02.02.c CS.02.03.03.b CS.06.02.01.a CS.07.02.01.b CS.08.01.01.c AS.03.01.02.a AS.04.01.01.c AS.06.01.01.c AS.08.02.01.c</p>
Recognize various meat products	<ul style="list-style-type: none"> Identify the wholesale and retail cuts of beef, pork and lamb. Express trends in meat consumption 	<p>FPP.01.01.01.b FPP.01.02.02.a FPP.02.03.01.a FPP.03.01.04.a SL.11.-12.4</p>
Explore careers in the livestock industry.	<ul style="list-style-type: none"> Discuss the requisites and rewards of careers 	<p>RST 11-12.4</p>

	in the livestock and meat animal industry.	
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Italicized items indicate technology use

Vocabulary:

- Forage crop
- Hay
- Silage
- Wholesale

Assessments:

- Lab activities
- Class assignments
- Tests
- Quizzes
- Guest presentation/field trip reflections

Resources/Materials:

- Animals kept at Ag Center
- Feed: concentrates and roughages
- Modern Livestock and Poultry Production, Gillespie, J.R., Thompson.
- Animal Science, Ensminger, M.E.
- Retail Meat Identification cards.