



Tomah Area School District
High Quality Student Learning
Every Child. Every Day.

Essential Learning

Grade/Course: HS Agri-Science – Horse, Dairy & Livestock

Essential Knowledge:

Students will examine the components, historical development, global implications and future trends of the animal system industry.

- Evaluate the development and implications of animal origin, domestication and distribution.

Students will classify, evaluate, select and manage animals based on anatomical and physiological characteristics.

- Classify animals according to hierarchical taxonomy and agricultural use.
- Apply principles of comparative anatomy and physiology to uses within various animal systems.

Students will provide for the proper health care of animals.

- Prescribe and implement a prevention treatment program for animal diseases, parasites and other disorders.
- Identify bio-security threats and provide for the bio-security of agricultural animals and production facilities.

Students will evaluate and select animals based on scientific principles of animal production.

- Evaluate the male and female reproductive systems in selecting animals.
- Evaluate animals for breeding readiness and soundness.
- Describe how selection and geographical regions impact the economic decisions of our livestock business.
- Apply scientific principles in the selection and breeding of animals.
- Compare and contrast scientific methods associated with animal reproduction.

Students will prepare and implement animal handling procedures for the safety of animals, producers and consumer of animal products.

- Demonstrate safe animal handling and management techniques.
- Implement procedures to ensure that animal products are safe.

Students will select animal facilities and equipment that provide for the safe and efficient production, house and handling of animals.

- Design animal housing, equipment and handling facilities for the major systems of animal production.
- Comply with government regulations and safety standards for facilities used in animal production.

Students will analyze environmental factors associated with animal production.

- Reduce the effects of animal production on the environment.
- Evaluate the effects of environmental conditions on animals.

Students will identify and apply employability skills.

- Identify and demonstrate positive work behaviors and personal qualities needed to be employable.
- Demonstrate skills related to seeking and applying for employment to find and obtain a desired job.
- Identify and exhibit traits for retaining employment.
- Develop positive relationships with others.

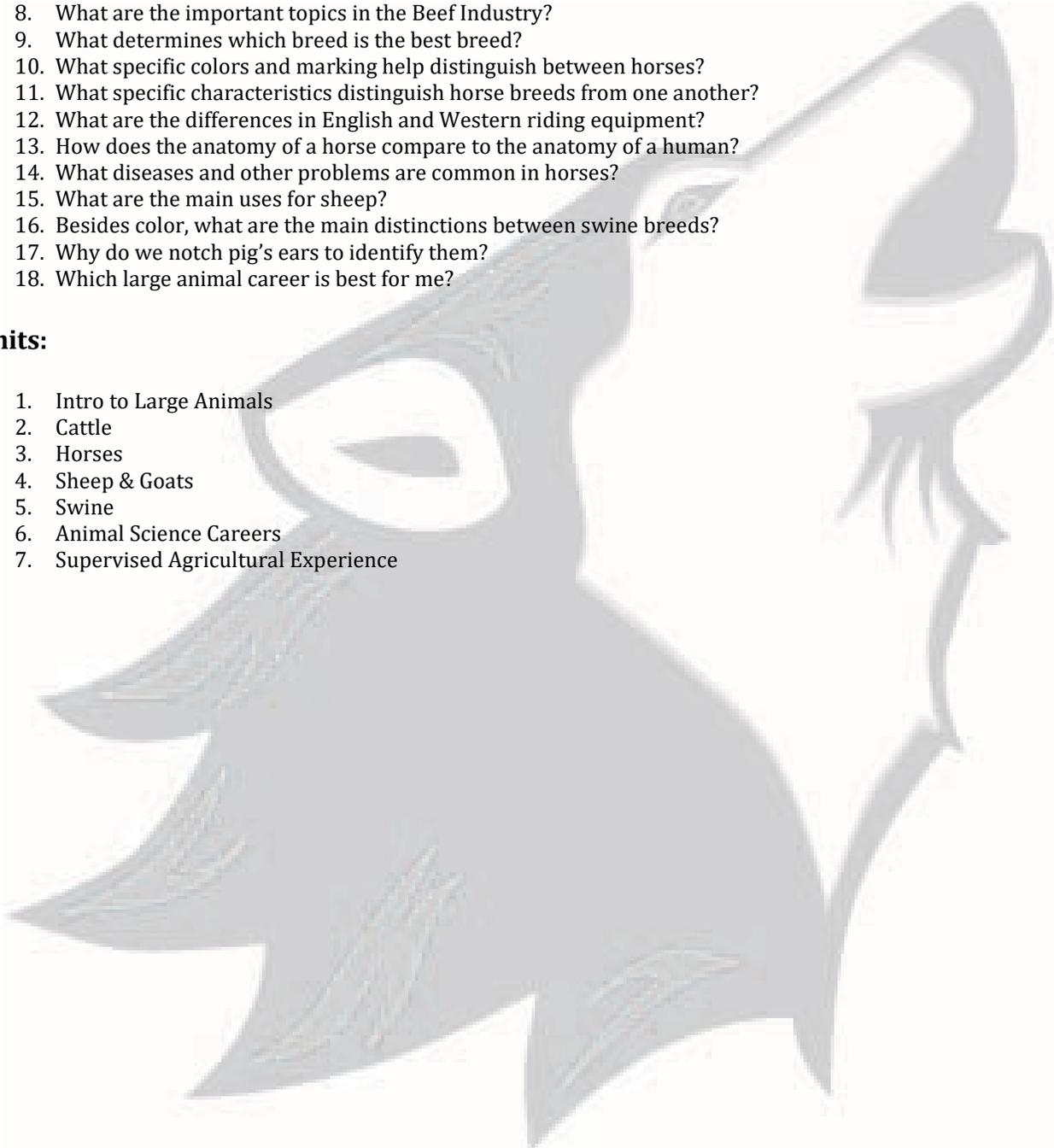
Students will use economic principles to establish and manage an AFNR enterprise.

Essential Questions:

1. Why is it important to know proper animal terms?
2. What are the various uses of animals?
3. Why are there various breeds of cattle?
4. What is the best way to tell your cattle breed apart from others?
5. If I were going to buy a farm what facilities and equipment would I need?
6. What are important topics in the Dairy Industry?
7. How do the different Beef Enterprises differ?
8. What are the important topics in the Beef Industry?
9. What determines which breed is the best breed?
10. What specific colors and marking help distinguish between horses?
11. What specific characteristics distinguish horse breeds from one another?
12. What are the differences in English and Western riding equipment?
13. How does the anatomy of a horse compare to the anatomy of a human?
14. What diseases and other problems are common in horses?
15. What are the main uses for sheep?
16. Besides color, what are the main distinctions between swine breeds?
17. Why do we notch pig's ears to identify them?
18. Which large animal career is best for me?

Units:

1. Intro to Large Animals
2. Cattle
3. Horses
4. Sheep & Goats
5. Swine
6. Animal Science Careers
7. Supervised Agricultural Experience





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Grade/Course: HS Agri-Science – Small Animals

Essential Knowledge:

Students will examine the components, historical development, global implications and future trends of the animal system industry.

- Evaluate the development and implications of animal origin, domestication and distribution.

Students will classify, evaluate, select and manage animals based on anatomical and physiological characteristics.

- Classify animals according to hierarchical taxonomy and agricultural use.
- Apply principles of comparative anatomy and physiology to uses within various animal systems.
- Select animals for specific purposes and maximum performance based on anatomy and physiology.

Students will prepare and implement animal handling procedures for the safety of animals, producers and consumer of animal products.

- Demonstrate safe animal handling and management techniques.
- Implement procedures to ensure that animal products are safe.

Students will identify and apply employability skills.

- Identify and demonstrate positive work behaviors and personal qualities needed to be employable.
- Demonstrate skills related to seeking and applying for employment to find and obtain a desired job.
- Identify and exhibit traits for retaining employment.
- Develop positive relationships with others.

Students will use economic principles to establish and manage an AFNR enterprise.

- Apply principles of capitalism in the business environment.
- Apply principles of entrepreneurship in businesses.

Essential Questions:

1. What is the history of animal domestication?
2. What are the important segments of the animal industry?
3. What are the components necessary to provide appropriate animal care and well-being?
4. What local businesses are a part of the animal industry?
5. What are the similarities and differences between vertebrates and invertebrates, and what are examples of each?
6. What are the six most important classes of animals?
7. What characteristics do animals from each of the six major animal classes have?
8. What ethics are involved in animal production?
9. What are the differences and similarities between animal rights and animal welfare?
10. What controversial topics are related to animal welfare and what are various points of view on them?
11. What are the external parts, and what is the physiology of a cat?
12. What characteristics make cat breeds distinctive from one another?
13. What are the external parts, and what is the physiology of a dog?
14. What are the groups and breeds of dogs?
15. What ingredients make dog treats?

16. What makes one dog food superior to another?
17. What should I consider when selecting a puppy?
18. What things are important to know in order to train a dog?
19. What is necessary to consider when selecting a pet?
20. Which animal systems career is best for me?

Units:

1. Animal Domestication
2. Animal Classification
3. Animal Rights & Animal Welfare
4. Cats
5. Dogs
6. Pet Selection
7. Animal Science Careers
8. Supervised Agricultural Experience





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Essential Learning

Grade/Course: HS Agri-Science – Vet Science

Essential Knowledge:

Students will examine the components, historical development, global implications and future trends of the animal system industry.

- Evaluate the development and implications of animal origin, domestication and distribution.

Students will classify, evaluate, select and manage animals based on anatomical and physiological characteristics.

- Classify animals according to hierarchical taxonomy and agricultural use.
- Apply principles of comparative anatomy and physiology to uses within various animal systems.
- Select animals for specific purposes and maximum performance based on anatomy and physiology.

Students will provide for the proper health care of animals.

- Prescribe and implement a prevention treatment program for animal diseases, parasites and other disorders.
- Identify bio-security threats and provide for the bio-security of agricultural animals and production facilities.

Students will prepare and implement animal handling procedures for the safety of animals, producers and consumer of animal products.

- Demonstrate safe animal handling and management techniques.
- Implement procedures to ensure that animal products are safe.

Students will identify and apply employability skills.

- Identify and demonstrate positive work behaviors and personal qualities needed to be employable.
- Demonstrate skills related to seeking and applying for employment to find and obtain a desired job.
- Identify and exhibit traits for retaining employment.
- Develop positive relationships with others.

Students will use economic principles to establish and manage an AFNR enterprise.

- Apply principles of capitalism in the business environment.
- Apply principles of entrepreneurship in businesses.

Essential Questions:

1. What precautions do people working in the veterinary science field need to take on a regular basis?
2. What are the various types of hazards in veterinary medicine?
3. What is the purpose of safety signs and equipment?
4. How do animal safety precautions differ based on clinic or field practice?
5. How does a virus become an “outbreak”?
6. What are zoonotic diseases and how can veterinarians prevent their spread?
7. What prefixes, root words and suffixes are used in veterinary medicine?
8. How can we use prefixes, roots and suffixes to create veterinary terminology?
9. How do abbreviations and Latin terms play a role in veterinary medicine?
10. What terminology is used to describe the various directional areas and surface planes of an animal?
11. How does an animal skeleton correspond with a human skeleton?

12. What are the various parts of the bone?
13. What are the three types of muscles and how do they differ?
14. What are the major muscles of a dog?
15. What anatomical parts are considered the upper respiratory system?
16. What anatomical parts are considered the lower respiratory system?
17. What characteristics are displayed by a healthy animal?
18. What are the specific procedures for checking an animal's TPR?
19. What are the benefits of animals and humans bonding?
20. What controversial topics are related to animal welfare and what are various points of view on them?
21. What career opportunities are available in the field of veterinary medicine?
22. Why is it important to know the symptoms, transmission, treatment and prevention of common diseases?
23. What are the five stages of grieving?
24. Which side of the heart is larger, why?
25. What are three common procedures conducted in the animal hospital?
26. What are three important things to tell clients about administering medication?
27. Which animal systems career is best for me?

Units:

1. Safety & Sanitation
2. Vet Terminology
3. Anatomy & Physiology
4. Clinical Exams
5. Animals in Society
6. Diseases
7. Hospital Procedures
8. Animal Science Careers
9. Supervised Agricultural Experience

