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| Content Area Agriscience DRAFT | Course: Horse Management Year A | Grade Level: 11/12 |
|  | R14 The Seven Cs of Learning  | |
| <p style="text-align: center;">Unit Titles</p> | <p style="text-align: center;">Length of Unit</p> | |
| <ul style="list-style-type: none"> • <i>Maintenance and Safety</i> | <p style="text-align: center;">1-2 weeks</p> | |
| <ul style="list-style-type: none"> • <i>Horse Selection</i> | <p style="text-align: center;">4-6 weeks</p> | |
| <ul style="list-style-type: none"> • <i>Anatomy and Physiology</i> | <p style="text-align: center;">8 - 10 weeks</p> | |
| <ul style="list-style-type: none"> • <i>Supervised Agricultural Experiences (SAE) Proficiencies</i> | <p style="text-align: center;">1 - 2 weeks</p> | |
| <ul style="list-style-type: none"> • <i>Breeding Farm Management</i> | <p style="text-align: center;">4 - 6 weeks</p> | |
| <ul style="list-style-type: none"> • <i>Equine Breeds</i> | <p style="text-align: center;">2 - 4 weeks</p> | |



| Strands | Course Level Expectations |
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| Maintenance | <ul style="list-style-type: none"> • Students can maintain equipment, facility and daily essential care of horses. |
| Safety | <ul style="list-style-type: none"> • Students understand safe operation of equipment and safety when working around horses. |
| Inquiry | <ul style="list-style-type: none"> • Students can determine why and how to use information for the health and well being of the horse. |
| Research | <ul style="list-style-type: none"> • Students can create a process for research and ask key questions. • Students will know how to solve the problem. • Students will know what is the key question? |

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| Unit Title | Maintenance and Safety | Length of Unit | 1-2 weeks |
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| Inquiry Questions (Engaging & Debatable) | <ul style="list-style-type: none"> • Why is safety around horses essential? • How does knowledge of farm management help us to create a safe environment? • Why is maintenance and organization important? |
| Standards* | <p>Animal Science (AS): AS.06.01.01.c. Assess taxonomic characteristics and classify animals according to the taxonomic classification system. AS.07.01.02.c. Determine when an animal health concern needs to be referred to an animal health professional. AS. 08.02.01.c. Apply valid and reliable research evidence to predict the potential for an animal population.</p> |
| Unit Strands & Concepts | <p>Why Maintenance Matters, Safety, The Inquiry Process. Horse behavior, barn rules and requirements, organization of barn, barn chores, safe equipment operation</p> |
| Key Vocabulary | <p>Flight or fight, horse handling, routine, cleanliness, teamwork, maintenance</p> |

* The agriculture, food and natural resources (AFNR) industry standards

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| Unit Title | Maintenance and Safety | Length of Unit | 1 -2 weeks |
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| Critical Content: My students will Know ... | Key Skills: My students will be able to (Do) ... |
| <ul style="list-style-type: none"> • why a well-run barn has rules for work and rules for safety. • horse behavior patterns • where tools, equipment and feed are located in the barn • steps to safely operate tractors and equipment | <ul style="list-style-type: none"> • explain the barn rules to each other • conduct a barn tour • identify tools and equipment needed for essential tasks • maintain facility and horses on a daily basis • safely operate tractors and equipment |

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| Assessments: | <ul style="list-style-type: none"> • Performance Assessment - Barn Manager for the Day |
| Teacher Resources: | <ul style="list-style-type: none"> ❖ Parker, Rick. Equine Science 2nd edition, Delmar Publishers Inc. 2003 ❖ Various Primary and Industry sources ❖ TheHorse.com |

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|-------------------|-----------------|-----------------------|-----------|
| Unit Title | Horse Selection | Length of Unit | 4-6 weeks |
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| Inquiry Questions (Engaging & Debatable) | <ul style="list-style-type: none"> • Why do we need to know how to evaluate horses? • How can we tell if a horse has correct or incorrect conformation? |
| Unit Strands & Standards | <p>Animal Science (AS): AS.06.03.01.c. Evaluate and select animals to maximize performance based on anatomical and physiological characteristics that affect health, growth and reproduction AS.06.03.02.c Choose implement and evaluate sustainable and efficient procedures (e.g., selection, housing, nutrition and management) to produce consistently high-quality animals that are well suited for their intended purposes.</p> |
| Unit Strands & Concepts | <p>The Identification Process, The Inquiry Process, Methods and Research. Comparative analysis, defending decisions, identification, organization and reasoning.</p> |
| Key Vocabulary | <p>Balance, structural correctness, muscling, way of going, breed/sex characteristics, blemish, unsoundness, terminology.</p> |

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|-------------------|-----------------|-----------------------|-----------|
| Unit Title | Horse Selection | Length of Unit | 4-6 weeks |
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| Critical Content: My students will Know ... | Key Skills: My students will be able to (Do) ... |
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| <ul style="list-style-type: none"> ways to evaluate the conformation of a horse based on the following criteria: balance, structural correctness, muscling, way of going and breed/sex characteristics ways to identify blemishes and unsoundnesses of horses judging terminology the external anatomy of the horse | <ul style="list-style-type: none"> identify the external anatomy of the horse evaluate classes of horses based on criteria take notes while judging class of horses determine a placing for the class of horses write or recite reasons for placing the class of horses use proper judging terminology orally or written identify common unsoundnesses and blemishes understand and use terminology in judging horses |

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| Assessments: | <ul style="list-style-type: none"> Summative Assessment: Anatomy and Content Knowledge Performance Assessment - Evaluate classes of horses with supporting evidence |
| Teacher Resources: | <ul style="list-style-type: none"> ❖ Parker, Rick. Equine Science 2nd edition, Delmar Publishers Inc. 2003 ❖ Various industry sources |

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|-------------------|------------------------|-----------------------|--------------|
| Unit Title | Anatomy and Physiology | Length of Unit | 8 - 10 weeks |
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| Inquiry Questions (Engaging & Debatable) | <ul style="list-style-type: none"> • Why do we need to know about the systems of the horse? • How does each system work with another? |
| Standards | <p>Animal Systems (AS): AS.06.02.03.a. Identify and summarize the properties, locations, functions and types of animal cells, tissues, organs and body systems. AS.06.02.03.b. Compare and contrast animal cells, tissues, organs, body systems types and functions among animal species. AS.02.02.01.c. Select, evaluate and defend the use of specific tools, technology or equipment used to perform animal husbandry and welfare tasks.</p> |
| Unit Strands & Concepts | How systems work, identification, dissection, comparative analysis, making models, age analysis, organ dissection |
| Key Vocabulary | Skeletal, dental, respiratory, cardiovascular, integumentary, endocrine, nervous, muscular, urinary systems |

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|-------------------|------------------------|-----------------------|--------------|
| Unit Title | Anatomy and Physiology | Length of Unit | 8 - 10 weeks |
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| Critical Content: My students will Know ... | Key Skills: My students will be able to (Do) ... |
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| <ul style="list-style-type: none"> • how each system of the horse works • anatomy of each system of the horse • disorders that affect each system | <ul style="list-style-type: none"> • identify the bones of the horse on a skeleton • dissect various organs (kidney, heart, lungs) • make models of different systems • basic massage techniques for muscles • age live horses by looking at teeth |

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| Assessments: | <ul style="list-style-type: none"> • Interim: Each system will have a unit test or project • Formative: worksheets, diagrams • Performance: noodle skeleton, paint muscles on live horse, dissection of organs, guest speakers about each system: veterinarian, massage therapist, acupuncturist, chiropractor, farrier, dentist |
| Teacher Resources: | <ul style="list-style-type: none"> ❖ Parker, R. <i>Equine Science</i> 2nd Ed, Delmar Publishers Inc. 2003 ❖ Various Industry Resources ❖ TheHorse.com |

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|---|--|-----------------------|------------|
| Unit Title | Breeding Farm Management | Length of Unit | 4- 6 weeks |
| Inquiry Questions (Engaging & Debatable) | <ul style="list-style-type: none"> • How do we select good breeding stock? • Why are there different methods of breeding horses? • How can we be responsible breeders of horses? | | |
| Standards | <p>Animal Science (AS): AS.04.02.02.c. Select and evaluate breeding animals and determine the probability of a given trait in their offspring. AS.04.02.04.c. Create a plan to differentiate care of a species of breeding animals throughout their growth stages. AS.04.03.01.c. Select animal breeding methods based on reproductive and economic efficiency. AS.04.03.02.c. Evaluate the implementation and effectiveness of artificial insemination techniques. AS.04.03.04.c. Select and assess animal performance based on quantitative breeding values for specific characteristics.</p> | | |
| Unit Strands & Concepts | Developing inquiry skills, understanding research, reproductive systems of mare and stallion, live cover, artificial insemination, embryo transfer, semen evaluation, pregnancy determination, gestation, foaling | | |
| Key Vocabulary | Ovaries, uterus, vagina, testicles, penis, accessory glands, teasing, artificial vagina, placenta, colostrum, estrus, | | |

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| Unit Title | Breeding Farm Management | Length of Unit | 4-6 weeks |
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| Critical Content: My students will Know ... | Key Skills: My students will be able to (Do) ... |
| <ul style="list-style-type: none"> the anatomy and physiology of the mare and stallion different breeding methods used with horses (AI,ET, live cover) how to detect estrus in mares what is involved with semen evaluation how to care for pregnant mare the signs of parturition the care of the newborn foal | <ul style="list-style-type: none"> draw and/or identify the structures of the reproductive tracts research breeding methods watch mares being teased to score for estrus view a stallion being collected for AI or live cover develop a foaling kit for parturition watch a foal being born |

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| Assessments: | <ul style="list-style-type: none"> Unit Assessment: Identification Diagraming, Breeding Research Project Performance Tasks: develop a foaling kit, visit farms for teasing, breeding techniques, |
| Teacher Resources: | <ul style="list-style-type: none"> ❖ Parker, R. <i>Equine Science</i> 2nd Ed, Delmar Publishers Inc. 2003 ❖ Guest Speakers (i.e. veterinarian, breeding farm manager) ❖ The Horse.com |

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| Unit Title | Equine Breeds | Length of Unit | 2 -4 weeks |
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| Inquiry Questions (Engaging & Debatable) | <ul style="list-style-type: none"> • Why are there so many breeds of equines? • How are each of these breeds unique? • How have horses been used over the years? |
| Unit Strands & Standards | <p>Animal Systems (AS): AS.06.01.01.c. Assess taxonomic characteristics and classify animals according to the taxonomic classification system. AS.06.01.02.c. Recommend different uses for an animal species based upon an analysis of local market needs. AS.06.01.03.c. Apply knowledge of classification terms to communicate with others about animal systems in an effective and accurate manner. AS.01.01.01.c. Evaluate the implications of animal adaptations on production practices and the environment.</p> |
| Unit Strands & Concepts | Inquiry and research of breeds, evolution of the horse, domestication and uses, identification of draft, pony, light and warm blood breeds |
| Key Vocabulary | Eohippus, mesohippus, merychippus, pliohippus, Equus caballus, domestication |

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|-------------------|--------------|-----------------------|-------------|
| Unit Title | Horse Breeds | Length of Unit | 2 - 4 weeks |
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| Critical Content: My students will Know ... | Key Skills: My students will be able to (Do) ... |
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| <ul style="list-style-type: none"> • the major evolutionary horse-like animals • how humans changed the way horses are used • the scientific name of the horse and its close relatives • how to identify breeds of draft, pony, light and warm blood breeds | <ul style="list-style-type: none"> • develop a project to explain a breed(s) of equines • explore how horses have been used through history. • identify and teach others using resources (technology, maps, etc.) about the origin of breeds of equines • make a timeline of the evolution of the horse |

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| Assessments: | <ul style="list-style-type: none"> • Summative Assessment • Interim Assessment: Breed Research • Performance Task: Breed Presentation (multimedia/technology application) |
| Teacher Resources: | <ul style="list-style-type: none"> ❖ Parker, R. <i>Equine Science</i> 2nd Ed, Delmar Publishers Inc. 2003 ❖ Guest Speakers (i.e. veterinarian, breeding farm manager) ❖ The Horse.com |