

# Agricultural Science I

**Curriculum Guide:** *Equine Science*

**Unit Objective:**

Students will demonstrate an understanding of the requirements for care of equine livestock by designing a health maintenance, hoof care, and feeding plan for a horse.

**Show-Me Standards:** 1.8, SC3

**References:**

Equine Nutrition. Accessed March 12, 2003, from <http://www.worldzone.net/recreation/virtuallyhorses/nutrition.html>.

*Equine Science*. University of Missouri-Columbia, Instructional Materials Laboratory, 1995.

*FBMA: Horse Management for Adults* (CD). Farm Business Management Analysis, University of Missouri, Agricultural Education Department, 2002.

The Horse.com. Accessed March 12, 2003, from <http://www.thehorse.com>.

Students will use additional outside sources to complete this activity.

**Instructional Strategies/Activities:**

- Students will engage in study questions in lessons 1 through 10.
- Students will complete AS 5.1, Microscope Use; AS 6.1, External Parts of the Foot; and AS 6.2, Internal Parts of the Foot.
- Additional activities that relate to the unit objective can be found under the heading "Other Activities" in the following locations: p. 4 (4), p. 20 (1), p. 27 (2), p. 38 (2), p. 53 (4), p. 71, p. 81 (2), p. 93 (1), and p. 100 (1, 2).

**Performance-Based Assessment:**

Students will work in teams of three to design a health maintenance, hoof care, and feeding plan for a horse. The plan should be presented in the form of tables that cover health maintenance, hoof care, and nutrition.

Assessment will be based on the quality of the information presented in the tables and how thoroughly the tables address their respective areas. Spelling also will be a consideration in the assessment.



## **Equine Science Instructor Guide**

**The instructor should assign the performance-based assessment activity at the beginning of the unit. Students will work toward completing the activity as they progress through the unit lessons. The assessment activity will be due at the completion of the unit.**

1. Students will work in teams of three to design a health maintenance, hoof care, and feeding plan for an actual or imaginary horse.
  - a. The team must identify the breed of the horse.
  - b. After establishing the breed, the team must then identify the basic characteristics of the horse, such as age, sex, activity level, etc.
2. After addressing the horse's breed and characteristics in a brief introductory paragraph, students should present the plan in the form of three tables.
  - a. Tables should cover the areas of health maintenance, hoof care, and nutrition.
  - b. Tables should be presented in a simple, two-column format. Column one should state the issue, condition, or management practice to be addressed and column two should state the solution, treatment (including frequency and/or amount, if applicable), or procedure for the item in column one. (See form on p. 7.)
3. Students may use material found in the unit or discussed in class as a starting point but must use additional outside material to complete their tables. Students may not use the source material word for word and must provide a complete bibliography of their sources along with their tables.
4. Regarding health maintenance, students should cover the following areas:
  - ☐ A vaccination schedule against diseases for which vaccines exist (e.g., influenza, sleeping sickness, tetanus, Rhino, and distemper)
  - ☐ Treatment or solutions for common ailments (e.g., colic, Equine Infectious Anemia, Potomac Horse Fever, and salmonella infection)
  - ☐ Dental care
  - ☐ Parasites (internal and external)
  - ☐ Treatment for common injuries or problems (e.g., wounds, foot punctures, bites and stings, strains, sprains, swelling, and founder)
5. Regarding hoof care, students should cover the following areas:
  - ☐ Hoof inspection
  - ☐ Trimming the hoof
  - ☐ Shoeing

- ☐ Hoof abnormalities (e.g., founder, stone bruise, naviculitis, thrush, and hoof cracks)
6. Regarding nutrition, students should cover the following areas:
- ☐ Nutritional requirements (These should take into account such factors as size, age, and work load.)
  - ☐ Water requirements
  - ☐ Feed types (e.g., grains, roughage, supplements, minerals, and vitamins)
  - ☐ Nutrition-related problems (e.g., colic, founder, epiphysis, vitamin depletion or excess, toxic plant consumption, and tying up syndrome)
7. Assessment will focus on the quality of the information presented in the tables and how well the tables address their respective areas. Spelling also will be a consideration in the assessment.

**Equine Science  
Student Handout**

1. Work in teams of three to design a health maintenance, hoof care, and feeding plan for an actual or imaginary horse.
  - a. Identify the breed of the horse.
  - b. After establishing the breed, identify the basic characteristics of the horse, such as age, sex, activity level, etc.
2. After addressing the horse's breed and characteristics in a brief introductory paragraph, present the plan in the form of three tables.
  - a. Tables should cover the areas of health maintenance, hoof care, and nutrition.
  - b. Tables should be presented in a simple, two-column format. Column one should state the issue, condition, or management practice to be addressed and column two should state the solution, treatment (including frequency and/or amount, if applicable), or procedure for the for the item in column one.
3. You may use material found in the unit or discussed in class as a starting point but must use additional outside material to complete the tables. You may not use the source material word for word and must provide a complete bibliography of the sources along with your tables.
4. Regarding health maintenance, cover the following areas:
  - ☐ A vaccination schedule against diseases for which vaccines exist (e.g., influenza, sleeping sickness, tetanus, Rhino, and distemper)
  - ☐ Treatment or solutions for common ailments (e.g., colic, Equine Infectious Anemia, Potomac Horse Fever, and salmonella infection)
  - ☐ Dental care
  - ☐ Parasites (internal and external)
  - ☐ Treatment for common injuries or problems (e.g., wounds, foot punctures, bites and stings, strains, sprains, swelling, and founder)
5. Regarding hoof care, cover the following areas:
  - ☐ Hoof inspection
  - ☐ Trimming the hoof
  - ☐ Shoeing
  - ☐ Hoof abnormalities (e.g., founder, stone bruise, naviculitis, thrush, and hoof cracks)

6. Regarding nutrition, cover the following areas:
  - ☐ Nutritional requirements (These should take into account such factors as size, age, and work load.)
  - ☐ Water requirements
  - ☐ Feed types (e.g., grains, roughage, supplements, minerals, and vitamins)
  - ☐ Nutrition-related problems (e.g., colic, founder, epiphysis, vitamin depletion or excess, toxic plant consumption, and tying up syndrome)
7. You will be assessed on the quality of the information presented in the tables and how well the tables address their respective areas. Spelling also will be a consideration in the assessment.

## Table for:

☐ Health Maintenance   ☐ Hoof Care   ☐ Nutrition

(Check one)

Health Issue, Condition, or Management Practice	Solution, Treatment, or Procedure





# Agricultural Science I

## Equine Science Scoring Guide

Names \_\_\_\_\_

Assessment Area	Criteria	0 Points	1 Point	2 Points	3 Points	4 Points	Weight	Total
<u>Health Maintenance:</u> Vaccinations	How well and how thoroughly is this point addressed?	Failed	Poor	Fair	Good	Excellent	X 1.75	
Common Ailments	How well and how thoroughly is this point addressed?	Failed	Poor	Fair	Good	Excellent	X 1.75	
Dental Care	How well and how thoroughly is this point addressed?	Failed	Poor	Fair	Good	Excellent	X 1.75	
Parasites	How well and how thoroughly is this point addressed?	Failed	Poor	Fair	Good	Excellent	X 1.75	
Common Injuries or Problems	How well and how thoroughly is this point addressed?	Failed	Poor	Fair	Good	Excellent	X 1.75	
<u>Hoof Care:</u> Inspection	How well and how thoroughly is this point addressed?	Failed	Poor	Fair	Good	Excellent	X 1.75	
Trimming	How well and how thoroughly is this point addressed?	Failed	Poor	Fair	Good	Excellent	X 1.75	
Shoeing	How well and how thoroughly is this point addressed?	Failed	Poor	Fair	Good	Excellent	X 1.75	
Abnormalities	How well and how thoroughly is this point addressed?	Failed	Poor	Fair	Good	Excellent	X 1.75	

<u>Nutrition:</u> Requirements	How well and how thoroughly is this point addressed?	Failed	Poor	Fair	Good	Excellent	X 1.75	
Water Requirements	How well and how thoroughly is this point addressed?	Failed	Poor	Fair	Good	Excellent	X 1.75	
Feed Types	How well and how thoroughly is this point addressed?	Failed	Poor	Fair	Good	Excellent	X 1.75	
Related Problems	How well and how thoroughly is this point addressed?	Failed	Poor	Fair	Good	Excellent	X 1.75	
Technical Considerations	Spelling errors	6 or more errors	5 errors	4 errors	2-3 errors	0-1 error	X 2.25	
<b>TOTAL</b>								

**Final Assessment Total \_\_\_\_/100 pts.**

**Comments:**