

Agricultural Science I

Curriculum Guide: *Introduction to Animal Reproduction*

Unit Objective:

Students will demonstrate an understanding of the principles of animal reproduction by summarizing the advantages and disadvantages of a common breeding method and presenting their findings on a poster that will be displayed in class.

Show-Me Standards: 3.7, SC3

References:

Advanced Livestock Production and Management. University of Missouri-Columbia, Instructional Materials Laboratory, 2000.

FBMA Beef Management (CD). University of Missouri-Columbia, Farm Business Management Analysis, 2001.

FBMA Horse Management for Adults (CD). University of Missouri-Columbia, Farm Business Management Analysis, 2002.

Introduction to Animal Reproduction. University of Missouri-Columbia, Instructional Materials Laboratory, 1996.

Lamberson, B., Massey, J., & Whittier, J. C. *Crossbreeding Systems for Small Herds of Beef Cattle*. University of Missouri-Columbia. Accessed May 1, 2003, from <http://muextension.missouri.edu/explore/agguides/ansci/g02040.htm>.

Sterle, J., & Safranski, T. *Artificial Insemination in Swine: Breeding the Female*. University of Missouri-Columbia. Accessed May 1, 2003, from <http://muextension.missouri.edu/explore/agguides/ansci/g02312.htm>.

Vogt, D., Swartz, H. A., & Massey, J. *Inbreeding: Its Meaning, Uses and Effects on Farm Animals*. University of Missouri-Columbia. Accessed May 1, 2003, from <http://muextension.missouri.edu/explore/agguides/ansci/g02911.htm>.

Students may use additional outside sources to complete this activity.

Instructional Strategies/Activities:

- Students will engage in study questions in lessons 1 through 7.
- Students will complete AS 1.1, Reproductive System of the Bull; AS 1.2, Dissection of a Testicle; AS 2.1, Reproductive System of the Cow; AS 2.2, Dissection of a Female Reproductive Tract; AS 3.1, Gathering Breeding Age Information; and AS 4.1, Gestation and the Reproductive Tract.
- Additional activities that relate to the unit objective can be found under the heading “Other Activities” in the following locations: p. 35, p. 81 (1), and p. 125 (2).

Performance-Based Assessment:

Students will work in groups to determine the advantages and disadvantages of a common method of breeding livestock, such as straight breeding, crossbreeding, artificial insemination, or embryo transfer, and present their findings on a poster that will be displayed in class.

Assessment will be based on the overall content and presentation of the poster. At the instructor’s discretion, students will contribute to the assessment by providing a brief evaluation of the performance of the other members of their group.

Introduction to Animal Reproduction 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. Perform any relevant activities or demonstrations prior to the due date for the performance-based assessment so that students can incorporate material discussed or assigned during these activities in their performance-based assessment project.
2. Divide the class into groups and assign each group a common method of breeding livestock discussed in the unit, such as straight breeding, crossbreeding, artificial insemination, or embryo transfer.
3. Have the groups determine the advantages and disadvantages of their assigned breeding method and present their findings on a poster, which will be displayed in class. Have students list their assigned breeding method at the top of their poster and include a brief explanation of the method.
4. Students may use material in the unit as well as additional outside material to complete their poster.
 - a. Students may not use the source material word for word and must provide a complete bibliography of their sources along with their poster.
 - b. Students should incorporate additional supporting material, such as diagrams, illustrations, or information from class demonstrations, as needed to make the poster interesting and informative.
5. If desired, have students contribute to the assessment process by completing a short evaluation of their teammates' performance in developing their poster. A peer evaluation form is included following the scoring guide.
 - a. Have students complete the peer evaluation form by following the instructions listed at the top. Students should base their assessment on how much each person contributed to the project.
 - b. If tasks are divided so that students do only one type of task to contribute to the project, have students adjust their peer evaluation form by disregarding the category that does not apply to a particular teammate. Instead of assessing teammates on two categories worth 0 to 3 points, students will assess teammates on one category worth 0 to 6 points.

- c. To determine the final peer evaluation score, add up the scores that a student receives from the other members of the group and divide the total by the number of scores received. The maximum number of points possible for each student is 6.
- 6. The final assessment score will be based on the overall content and presentation of the poster.

Introduction to Animal Reproduction Student Handout

1. The instructor will divide the class into groups and assign each group a common method used for breeding livestock.
2. Determine the advantages and disadvantages of your assigned breeding method.
3. Present your findings on a poster, which will be displayed in class. Include the name of your assigned breeding method and a brief explanation at the top of your poster.
4. You may use material in the unit as well as additional outside material to complete your poster.
 - a. You may not use the source material word for word and must provide the instructor with a complete bibliography of your sources along with your poster.
 - b. Incorporate additional supporting material, such as diagrams, illustrations, or information from class demonstrations or activities, as needed to make the poster interesting and informative.
5. If requested, you will contribute to the assessment process by completing a short evaluation of your teammates' performance in developing the poster.
 - a. After your poster has been completed, fill out the peer evaluation score sheet.
 - b. Give the completed score sheet to your instructor.
6. Your final assessment score will be based on the overall content and presentation of your poster.

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Introduction to Animal Reproduction Scoring Guide

Name _____

Assessment Area	Criteria	0 Points	1 Point	2 Points	3 Points	4 Points	Weight	Total
Thoroughness	Poster provides all of the major advantages and disadvantages of the assigned breeding method	Failed	Poor	Fair	Good	Excellent	X 10	
Accuracy	Facts are accurate	Failed	Poor	Fair	Good	Excellent	X 7.5	
Presentation	Poster is well organized and eye-appealing	Failed	Poor	Fair	Good	Excellent	X 3.5	
Technical Considerations	Spelling, grammar, and punctuation are correct	Failed	Poor	Fair	Good	Excellent	X 2.5	
Peer Evaluation						6 pts. maximum		
TOTAL								

Final Assessment Total _____/100 pts.

Comments:

**Introduction to Animal Reproduction
Peer Evaluation**

Name _____

Write your name on the line above. Fill in the names of your teammates in the spaces provided below. For each category listed below, give each teammate a score from 0 to 3 based on his or her contribution to the project. Use the following guide.

- 0 – no contribution
- 1 – minimal contribution
- 2 – average contribution
- 3 – excellent contribution

Add the person's score in each category and place the total in the column at the right. Give the completed score sheet to your instructor.

Project development includes tasks such as planning and research. Project completion includes writing, assembling, or presenting the project. If tasks are divided so that you or your teammates do only one type of task to contribute to the project, consult the instructor about how to adjust your evaluation form.

Name of Teammate	Project Development 0-3 Points	Project Completion 0-3 Points	Total (6 Points Max.)

