Basic Livestock Surgical Procedures

**Media Type:** Microsoft® PowerPoint® presentation  
**Duration:** 35 slides

**Description:**  
Learn the latest methods of livestock surgery by observing castration techniques using an elastrator, burdizzo and scalpel. Additional tools used include a hot iron, knife, cup, spoon and tube for dehorning. Students will also be exposed to the latest practices for docking sheep. Class discussion topics include the correct treatments for the care of abscesses.

### Horizontal Alignment

<table>
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<tr>
<th>Core-Subject Area</th>
<th>Foundation Concept</th>
<th>Basic Understanding</th>
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| **Math**          | *Logical Skills*   | • Reasoning  
|                   |                    | • Patterns  |
| **Language Arts** | *Application of Writing Skills* | • Vocabulary enhancement  |
| **Science**       | *Scientific Thinking and Investigating* | • Field and laboratory investigations  
|                   | *Scientific Laws and Principles* | • Classification/organization skills  
|                   |                    | • Cycles, structures and processes  
|                   |                    | • Principles of biology, anatomy, physiology  
|                   |                    | • Physical and chemical reactions  |
Goal: To learn, understand and perform basic surgical applications of livestock.

1. To understand basic techniques associated with simple surgical procedures.
2. To learn proper care of livestock prior to, during and after simple surgical procedures.

Basic Livestock Surgical Procedures Presentation
Basic Livestock Surgical Procedures Student Notes and Teacher Notes
Basic Livestock Surgical Procedures Vocabulary Handout
Basic Livestock Surgical Procedures Crossword and Answer Key
Castration Simulation Teacher Instruction Sheet
Basic Livestock Surgical Procedures Assessment and Answer Key
Class 1:  Begin class with Basic Livestock Surgical Procedures presentation. Students will fill in the Basic Livestock Surgical Procedures Student Notes during the presentation. Explain terminology and stress safety precautions with students. Stop at slide 15 to review the section. If possible, show examples of different tools used in dehorning.

Class 2:  Review information from the previous day, then begin with slide 16, discussing castration. Show examples of tools if available. Stop at slide 26 and review methods of castration. Distribute the Basic Livestock Surgical Procedures Vocabulary Handout and assign the Basic Livestock Surgical Procedures Crossword for homework.

Class 3:  Review information from the previous day, then begin with slide 27, tail docking. Pause at slide 29 to review tail docking. Show students tools used if available. Begin with slide 30 and finish the presentation. Afterward, review the information.

Class 4:  Using the Castration Simulation Teacher Instruction Sheet, detail the project.

Class 5:  Review for the quiz by going over the Student Notes. Afterward, administer the Basic Livestock Surgical Procedures Assessment.

*Additional Instructional Strategies are provided.

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**Castration Simulation**

*Directions:* Students will simulate castration in the classroom. Refer to the Castration Simulation Teacher Instruction Sheet.

**Correlation Simulation Activity**

*Directions:* Since livestock are not always available, and to provide students with experience in using instruments, this activity is suitable for the classroom. Divide the students into pairs. Give each pair a fruit-filled sock prepared before class. Have one student hold the sock in the middle, while the other slips a band two inches above the fruit using the elastrator. Next, the student will use the razor blade or knife to cut the sock on the side by the fruit or on the bottom of the sock, making a three inch incision or larger, depending on the fruit. Pull the fruit out and cut the string. Switch partners and repeat with a new sock.

*Preparation for Activity:* Gather enough thin cotton socks for each student as well as two kiwi per student. Using a large needle, place a piece of long thread lengthwise through each kiwi, leaving a long tail on each. Place two kiwi in each sock, leaving both strings coming out of the opening.

*Additional Instructional Strategies* Ask a veterinarian or local resident to visit and demonstrate dehorning and castration on calves, sheep and goats or pigs. Have students observe and if possible help in the process. Allow students to view and handle the equipment. After the demonstrations, allow a question and answer session between students and presenter.