Harvesting of Livestock

**Media Type:** Microsoft® PowerPoint® Presentation  
**Duration:** 106 slides

**Goal:** To gain a better understanding of the methods of livestock harvesting.

**Description:**  
This presentation takes an in-depth look into the slaughtering process of livestock animals, describing the harvesting process from transportation of the animal to the sale of the packaged meat. Federal and state meat inspection standards such as safety, hygiene and quality control are also introduced. Detailed graphics aid in the identification of retail cuts, wholesale cuts and meat by-products of cattle, swine and lamb. Collaborator: Travis O'Quinn, Ph.D. candidate, Colorado State University.

**Objectives:**
1. To describe the livestock harvesting process.
2. To explain federal and state meat inspection standards.
3. To identify retail and wholesale cuts of meat correlated to major muscle groups and meat by-products.

**Horizontal Alignment**

<table>
<thead>
<tr>
<th>Core-Subject Area</th>
<th>Foundation Concept</th>
<th>Basic Understanding</th>
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</table>
| Math              | *Mathematical Figures and Concepts*         | • Measurements  
|                   |                                             | • Fractions                                               |
| Language Arts     | *Application of Writing Skills*             | • Vocabulary enhancement                                  |
|                   | *Analysis of Text and Information*         | • Developing listening and comprehension skills  
|                   |                                             | • Creating visual representations                        |
|                   | *Technology Applications in Literature*    | • Utilizing presentation processing software  
|                   |                                             | • Internet-based research                                 |
| Science           | *Scientific Thinking and Investigating*     | • Critical thinking and scientific problem solving        |
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Lesson Plan


Class 2: Show the Harvesting of Livestock - The Harvesting Process segment. Complete the Meat Science Career Activity. With an extra class time allow students to work on The Jungle Project.

Class 3: Show the Harvesting of Livestock - Retail Cuts & By-products segment. Students should complete the Student Notes. Complete the Market Animal Life Activity. Assign the Recipes for Meat Project to be prepared for the next class.

Class 4: Administer the Harvesting of Livestock Assessment. Allow students to present their Recipes for Meat Project.

Class 5: Finish all Projects.

Lesson Links

Purdue University Animal Sciences Meat Quality and Safety
- http://ag.an sc.purdue.edu/meat_quality/consumer_grading.html

Meat Science at Texas A&M
- http://meat.tamu.edu/beefgrading.html

USDA Food Safety and Inspection Service

Career & Technical Student Organizations

FFA
- Meat Evaluation

Career Connections

Using the Career Connections Activity, allow students to explore the various careers associated with this lesson. See the Activity for more details. If student licenses have been purchased: Students will select the interviews to watch based on your directions. If only a teacher license is purchased: Show students all the career interviews and instruct them to only complete the interview form for the required number of interviews.

- iCEV50054, Guy Loneragan, Ph.D., Professor, Epidemiology and Animal Health, Texas Tech University
- iCEV50032, Dan Hale, Ph.D., Professor & Extension Meat Specialist, Texas A&M University
- iCEV50313, Bob Lin, J.D., President, Food Concepts International
- iCEV50468, Angela Laury, Graduate Research Assistant & Ph.D., Department of Animal & Food Science, Texas Tech
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Meat Label
Directions:
The students will design and draw a meat label for a prepared meat item they create. The label should include the name of the product, quality of contents, inspection legend, firm's name and address, ingredient list and any special markings. Have the students come up with their own product name, ingredients and firm name.

Meat Science Career
Directions:
The student will research five careers in the meat science/harvesting industry. Have the students create a report which details the type of career, required education, median salary, job skills, safety regulations, work environments and likes and dislikes about the job.

Market Animal Life
Directions:
Have the student select either cattle, swine or sheep and research the life from birth through being completely harvested for the market animal of the species they selected. Students should create a flow chart marking each step in the animal’s life. Tell the students to use a computer program or poster to create their flow chart.

The Jungle
Directions:
The Jungle is a novel written by Upton Sinclair in 1906. The book was written to illustrate the harshness of the meat industry during the early 1900s. The novel explains poverty, absence of social programs and unpleasant working conditions. Sinclair’s observations were put in front of the American public, which prompted several new regulations in the meat industry. Instruct the students to read The Jungle and write a book report over the information they learned.

Recipes for Meat
Directions:
The student will create five recipes. Each recipe must include a retail cut from either beef, pork or lamb. Have the students include a brief description of the retail cut on the recipe. If time allows, have each student demonstrate one of their recipes to the class and allow everyone to sample the final products.