BEEF CATTLE
in the story of agriculture

Educator’s Guide
The American Farm Bureau Foundation for Agriculture® is building awareness, understanding and a positive public perception of agriculture through education.

600 Maryland Avenue, SW | Suite 1000W | Washington, DC 20024

800-443-8456 | www.agfoundation.org

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WELCOME EDUCATORS!

SNAPSHOT

SUPPORTED BOOK:
“Beef Cattle in the Story of Agriculture” by Susan Anderson and JoAnne Buggey

TARGETED GRADE LEVELS: 4–6

TIME: Varies by activity

OBJECTIVES: Students will be able to...

- Infer that farmers and ranchers care for animals based on factual information presented.
- Sample beef food products.
- Identify key steps in the distribution process.
- Communicate key nutrition facts about lean beef.
- Employ grade-level writing skills to communicate important information about American beef.

SUPPORTED STANDARDS:

CCSS for English Language Arts
- Reading Standards for Informational Text, Grade 4
  (1) Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
- Writing Standards, Grade 4 (2.b) Introduce a topic clearly and group related information in paragraphs and sections.
- Writing Standards, Grade 4 (2.c) Link ideas within categories of information using words and phrases (e.g., another, for example, also, because).

National Social Studies and History Standards from the National Council for Social Studies
- NSS-EC.5-8.3 Allocation of goods and services.
- NSS-EC.5-8.5 Gain from trade.

National Health Education Standards from the American Cancer Society
- NPH-H.5-8.5 Using communication skills to promote health.

The following activities may be done independently, or combined, to support exploration of the feature text.

This book is broken into five chapters: production, processing, distribution, marketing and consumerism. One activity is provided for each chapter.
ACTIVITIES

DIRECTIONS

ACTIVITY 1: PRODUCTION—FACTS AND INFERENCES

TIME: 30 minutes

MATERIALS:
White board or poster paper, markers

OVERVIEW:
1. Read Chapter 1: Production

2. Create two columns on a white board or poster paper. Label the first column “I heard that…” and the second column “That makes me think that…”

3. Independently or collectively, ask students to brainstorm specific details they recall from the book. Capture these responses in the “I heard that…” column. Refer back to the book to confirm accuracy as needed.

4. Introduce the concept of inferences. While the book may not say things specifically, what do we think about after reading this information? What can we assume? Provide the following example: On page 4, the book says that most farms and ranches have been in the same families for years. This makes me think that people who farm must enjoy what they do.

5. Refer to the facts students generated in the first column. For each fact, ask students, “What does this make you think?” and capture their response in the second column. Listen for the following:
   a. Farmers and ranchers care about animals.
   b. Farmers and ranchers care about the land.
   c. Farmers and ranchers work very hard.
   d. Cattle can turn food that we don’t eat (grass, hay) into food that we do eat (meat, milk).

ACTIVITY 2: PROCESSING—BLIND TASTE TEST

TIME: 30–45 minutes

MATERIALS:
Beef product samples (i.e. fully-cooked roast beef, beef sticks, fully-cooked all-beef hot dogs, Jell-O, gummy bears), paper grocery sack (1 per sample), paper plate (1 per sample), plastic food service gloves (1 per student), Test Card (attached, 1 per student), Beef Byproducts Checklist (optional, 1 per student)

*Important Note: Check for any food allergies in your class before doing this activity.

OVERVIEW:
1. Do this activity before reading Chapter 2: Processing.

2. Prior to class, set up blind-tasting stations around the room by placing pre-cut samples on a paper plate in each grocery sack. (i.e. One sack with roast beef samples, one sack with beef stick samples, etc.) Set up a specific area for tasting Jell-O that can be managed by the teacher or an adult volunteer.

   Note: You may wish to place Jell-O in small paper cups or create Jell-O squares to hand to each student.

3. Inform students that today they have a special opportunity to serve as blind taste-testers for a fictional agriculture company.

4. Give each student one food service glove and a test card (page 6). Ask students to get out a pencil.

5. Provide instructions. Students are to stand and rotate around the room, visiting each tasting station. Without looking into the bag, students are to reach their gloved hand in the bag and withdraw one sample item. Students should place the item into their ungloved hand before putting in their mouth. With eyes closed, the student is to taste the item and record what they think the item is on their personal test card. Demonstrate the process before having students begin. Students are to return to their seats after completing the activity.
6. After students have completed all taste tests, ask students what they thought was at each station. Reveal the actual identity of the product.

7. Ask students what all items have in common. These items all contain a product from beef cattle.


9. As a take-home challenge, ask students to look for beef products and byproducts at home. Give each student a copy of the “Beef Byproducts Checklist.” Ask students to check off any items they have in their home and bring back the list the next day.

**ACTIVITY 3: DISTRIBUTION—RELAY**

**TIME:** 15–20 minutes

**MATERIALS:**
Distribution Relay Cards (page 7), tape, foam or plastic balls (1 per every group of 4 students)

**OVERVIEW:**
1. This activity may be done before or after reading the chapter on distribution. It is best to do this activity outside in an open space, however if this is not an option, clear paths in a classroom to safely complete this activity. You may also do this activity in a gym or multi-purpose room.

2. Divide students into groups of four. Ask each student to pick a number, 1–4, within his or her group.

3. Hand out “Distribution Relay Cards” to students based on the numbers listed below. Each group should have all four cards.

   Note: If you have an odd number of students, one student in a group may play the part of 2 consecutive numbers. i.e. Grocery Store and Your Table.

   #1—Producer
   #2—Processor
   #3—Grocery Store
   #4—Your Table

4. Ask students to look at the card they have been given and make an educated guess as to what happens in this step of the process for distributing beef products. Listen for:

   - Producer: Farmers and ranchers raise beef cattle.
   - Processor: Meat is harvested, packaged and, in some cases, processed further into items like hot dogs, spaghetti sauce or packaged meals.
   - Grocery Store: Stores stock beef products and sell to consumers.
   - Your Table: People enjoy beef products at home!

5. Instruct students to attach their card to their shirt using tape.

   Note: You may wish to print cards on sticky labels to make this process easier!

6. Position all “Producers” in a line, shoulder to shoulder.

7. Position all “Processors” approximately 20 feet ahead, shoulder to shoulder. Continue to position “Grocery Stores” and “Your Tables” down the line in the same fashion.

8. Inform students they will compete in a relay race. “Producers” will be given a ball. They must run the ball to the next stop in the distribution line—“Processors.” “Processors” take the ball and run to grocery stores. “Grocery Stores” run the ball to “Your Table.” “Your Table” students then run the ball to a final finish line.

9. Hand one ball to each “Producer” and begin relay race.

10. Ask students to compare and contrast how this exercise is similar to the beef distribution process. Example responses:

   a. (Same) Beef products travel through each of these major stages when going from the farm to our table.

   b. (Different) Beef products may go to different processors before being distributed to grocery stores.
ACTIVITY 4: MARKETING—CREATE AN AD

TIME: 45 minutes–1 hour

MATERIALS:
Paper (1 per student pair), colored pencils or crayons, nutrition fact cards or computer lab

OVERVIEW:
1. Read Chapter 4: Marketing.
2. Ask students to consider how marketing impacts their decisions.
   a. What ads on TV, Internet or radio do you like?
   b. What ads make you hungry or thirsty?
   c. What ads make you really want to buy something?
3. Marketing advertisements are very powerful, and marketing is an important part of the agriculture industry. Consider this important background information:
   a. Effective marketing campaigns focus on a specific audience, purpose and method. For example, an ad for lean beef might target families (audience), to increase beef sales (purpose), by appealing to audience senses like taste and smell (method).
4. The scenario: Students are working for a marketing agency that has been contacted by American beef producers. Their task is to create marketing materials that share the benefits of eating lean beef. They may create an ad (illustrated on a sheet of paper), or a jingle for radio and TV.
5. Provide background information to students on the benefits of eating lean beef. You may distribute nutrition fact cards (page 8) or use a computer lab to have students look up information. Facts from nutrition cards are listed below, as well as suggested websites for further research.
   a. Lean beef is one of the most “naturally nutrient-rich foods.”
   b. Lean beef provides 10 essential nutrients including protein, zinc and B vitamins.
   c. There are less than 10 grams of fat in a 3-oz. serving of lean beef.¹
   d. Protein can help you maintain a healthy weight by building muscles.
   e. There are more than 29 cuts of beef that are considered lean!²
   f. Suggested Link: www.explorebeef.org
   g. Suggested Link: www.beefnutrition.org
   h. Suggested Link: www.choosemyplate.gov
6. Have students begin by identifying their target audience, purpose and method. Provide guidance as needed and then allow students to work on their advertisements.
7. Have students share final marketing materials.

ACTIVITY 5: CONSUMERISM—LINKING NEWS ARTICLE

TIME: 30–45 minutes

MATERIALS:
White board or poster paper, markers, composition paper

OVERVIEW:
1. Read Chapter 5: Consumerism
2. Define consumerism: “Consumerism is you choosing, buying and using products” (page 27 of “Beef in the Story of Agriculture”).
3. Ask students to assume the role of a newspaper reporter who has been asked to write an article about beef consumerism.
4. Display the following linking words/phrases on a white board or poster paper: another, for example, also, as well as, because, but, in conclusion.
5. Challenge students to write a two-paragraph news article about beef cattle using at least three linking words. Students should underline linking words.
6. Want to extend learning?
   a. Have students type articles and put together in a newspaper-style publication.
   b. Proof and have students create a final copy on newsprint, including an illustrated image.
   c. Create a blog using a free blog site like tumblr.com and have each student enter his or her article as a blog post.

ACTIVITY 6: EXTENSION—ENJOYING LEAN BEEF

TIME: 30–45 minutes

MATERIALS:
- Ingredients: 1 package thinly sliced lean beef, cooked rice, 1 bag frozen peas and carrots, oil or non-stick cooking spray, salt, pepper, soy sauce to taste
- Cooking Materials: electric griddle, large lid or baking sheet, paper cups, forks, napkins, spatula

OVERVIEW:
1. Make this delicious simple recipe for a fun, in-class extension of learning.
2. Lean Beef Stir-Fry
   Directions:
   i. Prepare rice prior to class on a stove or in a rice-cooker.
   ii. Heat electric griddle and coat with non-stick spray or 1–2 Tbsp. oil.
   iii. Season beef with salt and pepper.
   iv. Add thinly sliced lean beef and cook until well done.
   v. Add frozen peas and carrots to griddle. Add a small amount of water if necessary to generate steam. Place large lid or baking sheet over vegetables and meat to quickly steam. Remove lid carefully. Watch for hot steam!
   vi. Serve by placing a small amount of rice, topped with meat and vegetable mixture in a small cup for each student. Add soy sauce to taste.
3. Ask students how they might improve this recipe if they were to make it at home.
4. Want to extend learning? Challenge students to make a recipe at home using lean beef. Ask students to take a picture of the final product and bring it to class with a recipe card. Create your own class recipe book!
### ACTIVITY 2: BLIND TASTE TEST “TEST CARD”

<table>
<thead>
<tr>
<th>My Blind Taste-Test Card</th>
<th>1)</th>
<th>2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3)</td>
<td>4)</td>
</tr>
<tr>
<td></td>
<td>5)</td>
<td></td>
</tr>
</tbody>
</table>

### ACTIVITY 2: BEEF BYPRODUCTS CHECKLIST

We depend on beef for many things at home! Here are just few things often made from beef products. Put a check mark by each item you find at home.

- [ ] Antifreeze
- [ ] Baseball glove
- [ ] Buttons
- [ ] Cellophane wrap
- [ ] Chewing gum
- [ ] Crayons
- [ ] Dish soap
- [ ] Dog biscuits
- [ ] Football
- [ ] Ice cream
- [ ] Make-up
- [ ] Marshmallow
- [ ] Piano keys
- [ ] Sausage casing
- [ ] Shampoo/Conditioner
- [ ] Shaving cream
- [ ] Shoe crème
- [ ] Tires

ACTIVITY 3:
RELAY “DISTRIBUTION RELAY CARDS”

PRODUCTION

PROCESSING

GROCERY STORE

YOUR TABLE
ACTIVITY 4:
CREATE AN AD “NUTRITION FACT CARD”

**BEEF NUTRITION FACT CARD**

Lean beef provides 10 essential nutrients including protein, zinc and B vitamins.

There are less than 10 grams of fat in a 3-oz. serving of lean beef.

Protein can help you maintain a healthy weight by building muscles.

There are more than 29 cuts of beef that are considered lean!
My American Farm...

Built for educators, learners and their families with free downloadable Educator Resources and fun Family Activities to explore!

**LESSON EXTENDERS:**

My American Farm features several games specifically developed for elementary students:

- **EQUIPMENT ENGINEER**
  - **PLAY TIME:** 10–15 minutes
  - **GRADES:** 5–6
  - **CURRICULUM AREAS:** Language Arts, Science
  - **AG THEMES:** Agriculture is Everywhere

- **AG ACROSS AMERICA**
  - **PLAY TIME:** 5–7 minutes
  - **GRADES:** 3–5
  - **CURRICULUM AREA:** Geography
  - **AG THEMES:** Farmers Feed the World, Agriculture is Everywhere

- **HARVEST THIS**
  - **PLAY TIME:** 7–10 minutes
  - **GRADES:** 3–5
  - **CURRICULUM AREA:** Math
  - **AG THEMES:** Farmers Feed the World

Additional books in the Awesome Agriculture Series are all authored by Susan Anderson & JoAnne Buggey. Published by Northwest Arm Press.

- “Corn an A–Z book”
- “Soybeans an A–Z book”
- “Beef an A–Z book”
- “Pigs an A–Z book”
- “Soybeans in the Story of Agriculture” Winner of the AFBFA Book of the Year Award
- “Corn in the Story of Agriculture”
- “Pigs and Pork in the Story of Agriculture”

All available at [www.agfoundation.org](http://www.agfoundation.org) under Resource Orders, AFBFA
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