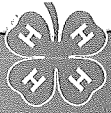


Name _____

County _____

REVIEWED & RECOMMENDED
National 4-H Curriculum



Beef Youth Activity Guide

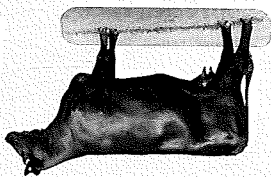


BRITTE INTO BRITE

Beef



Note to the Project Helper



Congratulations! A young person has asked you to be a beef project helper. As a helper you are in a great position to help youth grow and develop in positive ways as they learn about beef and about themselves. You can nurture and cultivate their interest in this project by guiding their planning, helping them complete their projects and recognizing them for a job well done.

Your Role

- Become familiar with the material in this activity guide and the *Helper's Guide*
- Support youth in their efforts to set goals and complete each achievement program
- Date and initial the activities on the Beef Achievement Program as the youth completes them
- Help them to get to know themselves, including their strengths and weaknesses
- Encourage the use of the experiential learning cycle described on this page

The Beef "Skills for Life" Series
This guide, *Bite Into Beef* is the first in the series of three for youth, which also includes *Beef 2 Here's the Beef*, *Beef 3 Leading the Charge* and the *Beef Helper's Guide*. The three youth guides have been designed to be developmentally appropriate for grades 3-4, 5-7 and 6-9 respectively, but may be used by youth in any grade based on their project skills and expertise.

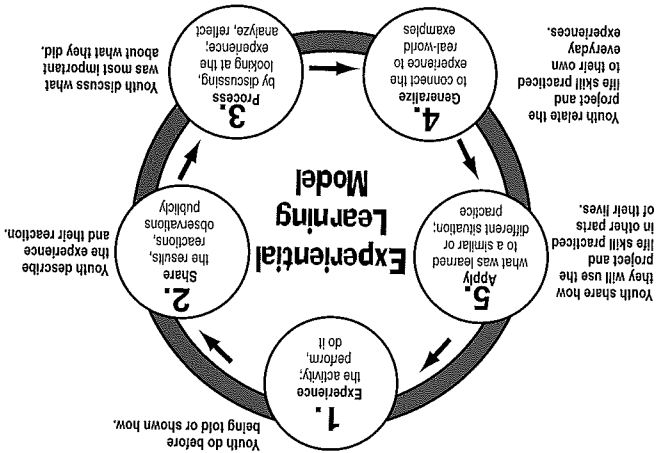
All activities in the guides have several parts: A description of the skills to be practiced, discussion questions, suggestions for additional activities and additional helpful information. The "Success Indicator" listed for each activity is an excellent way to evaluate the youth's success. Each of the guides also includes an achievement program to encourage youth to learn more about beef while developing important life skills.

Each activity is designed so the young person has an opportunity to learn by doing before being told or shown how. Your challenge is to "sit on your hands" while the youth explores the activity and learns from the experience, even when it doesn't work the way it's expected to.

Beef Group Activity Guide

The fourth publication in this series, *Beef Helper's Guide*, provides additional learn-by-doing activities that can be adapted to the family, the classroom, after school child care, 4-H project groups, clubs or other groups. You'll also find helpful hints about characteristics of youth, life skill development, teaching experientially, meeting ideas as well as answers to many of the activities in the youth guides. You will find another evaluation piece titled "Evaluating the Impact." Use this before beginning each level and after the youth has completed each level.

Experiential Learning Model



Pfeiffer, J.W., & Jones, J.E., "Reference Guide to Handbooks and Annals" © 1983 John Wiley & Sons, Inc. Reprinted with permission of John Wiley & Sons, Inc.

Good luck in your role as Project Helper!

This five-step model is included in each activity in this series. As you can see, the youth first attempt the activity on their own. After the youth do as much as they can and write answers to the last question in the process, generalize and apply section steps of Barn Talk questions, you then meet together and discuss: What they did? What was important about what they did? How does what they did relate to their lives? And finally, how might they use the life and project skills practiced in the future? Your ability to ask additional thought-provoking questions and to clarify and expand the youth's ideas will add to the educational experience.

Acknowledgments

2005 Revision Team: Jackie Buckley, Coordinator, ND; Stephen Scharer, Liaison, WY; Wendy Sorrell, VT; Carol Rodgers, IL; Sandy Yarger, IN; Susan Kerr, WA; Design, Illustration and Production: Northern Design Group, MN.

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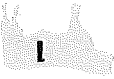
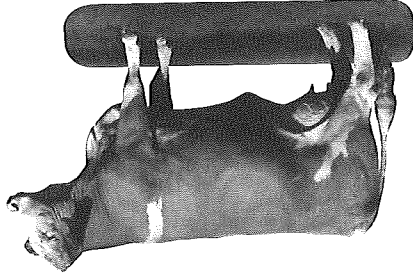
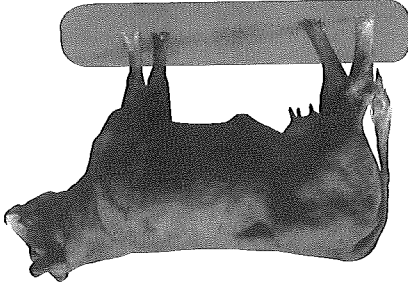
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Ken & Tracy Johnston
9136 Santa Margarita Rd
Atascadero CA 93422-6404

For more on beef other guide

Here's the Beef - Level 2 BU-08144

Chapter 1 Animal Health
Beef Quality Assurance
Following Feed through the Digestive System
Manage on the Range
Chapter 2 Safety and Ethics
Live Long and Prosper
Becoming Ethically Enlightened
Forever
Beef Communication
Chapter 3 Judging Beef
Evaluating Leg Structure
Judging Breeding Heifers
Presenting Oral Reasons
Determining Frame Scores
Chapter 4 Grading Beef
Locating and Identifying Beef Cuts
Making the Cut



Leading the Charge - Level 3 BU-08145

Chapter 1 Animal Nutrition and Health
Surt 'N Turt
Balancing a Beef Ration
Let's Talk Hay
Read It on the Label
Blocking Bovine Bugs
Chapter 2 Showing Beef
Filling for Show
Chapter 3 Meat Evaluation
Evaluating a Beef Carcass
Yielding the Grade
Chapter 4 EPPs
Selecting a Site
Chapter 5 Reproduction
Exploring Beef Reproductive Systems
The Heat Is On
A Womb with a View
The LamOoze Method
Chapter 6 Exploring Careers
Looking Ahead



Beef Helper's Guide - BU-08146

Youth Learning Characteristics
Teaching and Learning Experientially
Chapter 1 Front and Center
Producing a Beef Commercial
Planning the Beef Project Year
Show What You Know
Demonstrating Fitting Equipment
Chapter 2 Word Games
Playing BEFFagores
Beef Talk Games
Fun with Beef Pyramid
Playing STEAK Bingo
Chapter 3 Beef Management
Practices
Keep It Clean
Moo-grades
Investigating Medications
Tying the Knot
Chapter 4 Skill Building
Conducting a Beef Quiz Bowl
Identifying Sportsmanship
Practicing Sportsmanship
The 4-H Recognition Model
Answer Key
Beef Project Meeting Ideas



Calf Pattern - BU-07332



Having Fun with the Beef Project

Are you ready to learn more activities in this guide, you will have many interesting and exciting challenges.

Each activity asks you to do something. Don't be afraid to jump right in, and don't give up if the activity doesn't work out the first time. You're still learning, right? The most important thing is to try. Once you try, then think or talk about what happened or didn't happen and why.

Learning about beef isn't all you will be doing. You'll also be learning about yourself, too. Many of the things you'll learn are skills you'll use in other areas of your life such as decision making, communicating with others and being an effective leader.

Beef 1 Project Guidelines

- Set your goals and record project highlights.
- Do a minimum of seven activities in Level 1 of the Beef Achievement Program each year and complete the Program within three years.
- Complete the Before and After – What Do You Know? Evaluation
- Practice and develop the life skills of relating to others, making decisions, learning to learn and communicating with others.
- Increase your beef knowledge and skills.

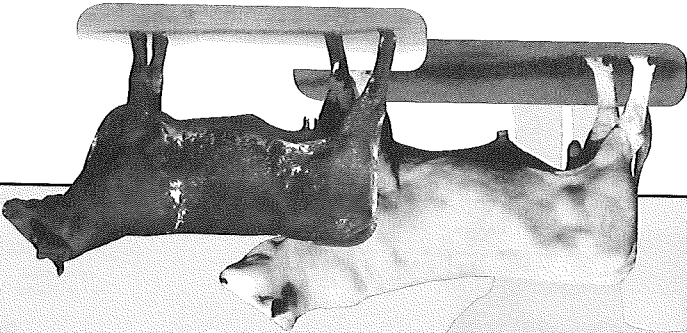
Your Project Helper

On your team supporting you and making learning more fun is your project helper. This person may be a parent, beef breeder, project leader or advisor, a neighbor or an older friend who knows about beef. The choice is yours. As you do the activities, you'll discuss with your helper what you did and the questions in the Barn Talk part of each activity. Sometimes your helper will need to work with you to identify resources, including people, organizations, events, magazines and books necessary to complete an activity. Once you have successfully completed each activity, your helper will date and initial your achievement program. Write the name and phone number of your project helper here:

My Project Helper: _____

Phone #: _____

Good Luck with Beef 1 - Bite Into Beef



Goals and Highlights

Beef Project Highlights
Date and list the exciting things you do and learn.

My Beef Project Goals

Name _____

What I want to do and learn in Beef 1.

1.

2.

3.

4.

Before and After - What do you know?

Here is a great way to see if you learn something new and develop important skills in this project. Before you start doing the activities in this guide indicate what you know **NOW**. Then when you complete the *Bite Into Beef* Achievement Program write down here what you know **AFTER**. You may be surprised to see what you learn! Share the results with your helper.
Begin each skill with the words "**I know how to...**" Then circle 1 (not at all), 2 (somewhat) or 3 (to a great extent).

Overall Beef Curriculum Outcomes

I know how to:

Make good decisions	1 2 3	1 2 3
Communicate with others	1 2 3	1 2 3
Lead self and others	1 2 3	1 2 3
Plan and organize	1 2 3	1 2 3
Relate to others	1 2 3	1 2 3
Accept responsibility	1 2 3	1 2 3
Feed and care for beef cattle	1 2 3	1 2 3
Keep beef cattle healthy	1 2 3	1 2 3
Show beef cattle	1 2 3	1 2 3
Be a knowledgeable consumer	1 2 3	1 2 3

Before

After

I know how to:

Identify fifteen breeds of beef cattle	1 2 3	1 2 3
Identify 30 beef body parts	1 2 3	1 2 3
Identify acceptable safety and ethical practices	1 2 3	1 2 3
Develop a daily animal care schedule	1 2 3	1 2 3
Examine a normal calf	1 2 3	1 2 3
Identify and categorize feed ingredients	1 2 3	1 2 3
Nose print a beef animal	1 2 3	1 2 3
Compare and describe differences between two beef animals	1 2 3	1 2 3
Identify 10 meat cuts and cook one	1 2 3	1 2 3
Identify 20 beef by-products	1 2 3	1 2 3
Practice halter breaking a calf	1 2 3	1 2 3
Demonstrate how to fit a steer for show	1 2 3	1 2 3
Demonstrate beef showmanship techniques	1 2 3	1 2 3

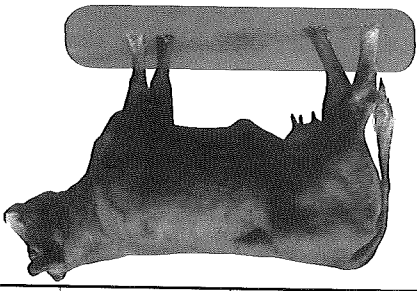
Bite Into Beef Achievement Program

Guidelines

- Do at least seven of the *Bite Into Beef* and *Beef It Up* activities each year.
- Complete at least 21 of the *Bite Into Beef* and *Beef It Up* activities within three years to complete this achievement program.
- Have your project helper date and initial the activities as you complete them.

Bite Into Beef Activities

Activities	Date	Completed	Helper's Initials
Chapter 1 Know Your Beef			
Identifying Beef Breeds			
Locating Beef Parts			
Doing the Right Thing IS the Right Thing			
Planning Your Work, Working Your Plan			
Chapter 2 Animal Health			
Recognizing a Healthy Animal			
Picking Feed Ingredients			
Where, Oh Where Is My Calf?			
Chapter 3 Beef and Beef Products			
Judging Beef			
Shopping for Beef			
Recognizing Beef By-products			
Chapter 4 It's Showtime!			
Halter Breaking Your Calf			
Fitting a Steer			
Showing Beef Cattle			



Activities **Beef It Up!**

Select and do any of the *Beef It Up* activities in *Bite Into Beef* or make up your own. Record the page and number of each one you complete.

Page #	Date Completed	Helper's Initial

Write your own activity here.

Date _____ Helper's Initials _____

Write your own activity here.

Date _____ Helper's Initials _____

Write your own activity here.

Date _____ Helper's Initials _____



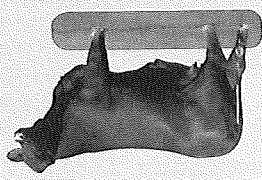
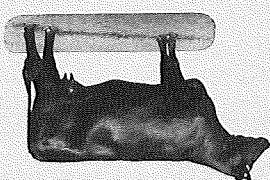
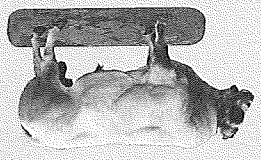
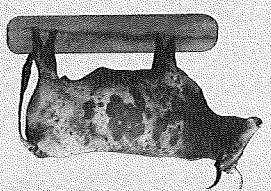
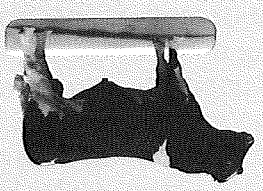
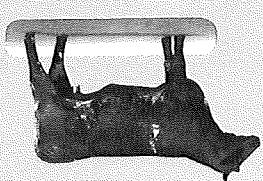
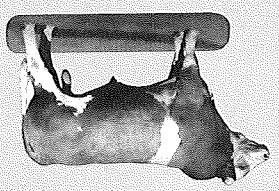
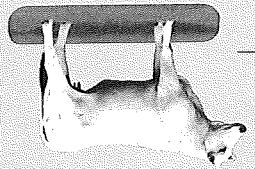
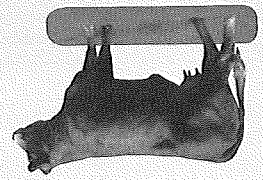
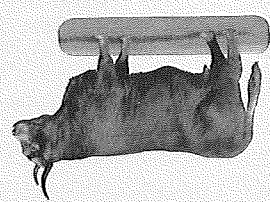
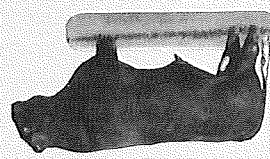
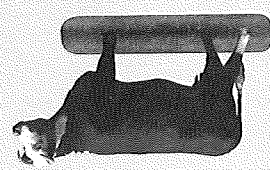
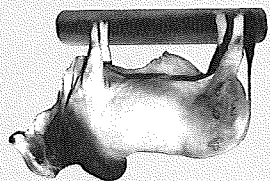
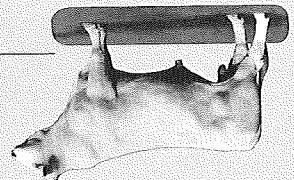
Date _____

Helper's Signature _____

has completed all requirements of the *Bite Into Beef* Achievement Program in the *Beef "Skills for Life" Series.*

I certify that

Completion Certificate BITE INTO BEEF



Identifying Beef Breeds



Beef Project Skill: Showing beef cattle
Life Skill: Making decisions
Education Standard: NS.K-4.3 Life Science
Success Indicator: Identify fifteen breeds of beef cattle.

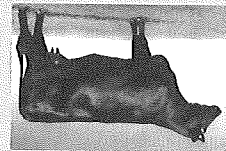
Taking on the Challenge

From the breeds listed in Facts on pages 7 and 9, match each breed to its description. Then complete the Word Find. When you have completed these activities, and discussed the questions in Barn Talk with your helper you will be able to recognize these breeds and know something about them.

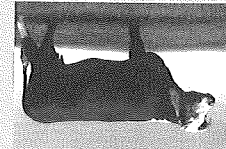
How many beef breeds do you know? More than 50 beef breeds are raised in the United States today. Each breed has strong and weak points. Some breeds grow more quickly than others. Some breeds are large, while others are smaller framed. You'll want to know the traits of many breeds and your farm's needs before selecting a breed to raise. When you have completed each of these activities and discussed the questions in Barn Talk with your helper you will be able to recognize these breeds and know something about them.

Beef Descriptions

A. Solid black polled breed that originated in Scotland. They are the most numerous cattle in the U.S. and are noted for high quality carcasses.



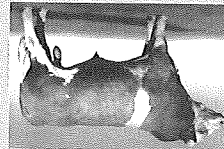
B. White faced, red cattle have horned blood lines and polled bloodlines. They are known for their mothering and foraging ability plus their very docile disposition. Horned and polled bloodlines are under one breed association. They are the second most numerous breed in the U.S.



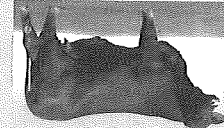
F. Large frame, solid white breed from France. They are known for their fast growth rates.



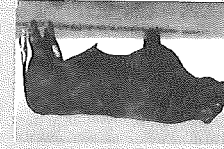
G. White faced, red or yellow breed from the Simme Valley in Switzerland. Noted for good milk production. American versions are black or red with a blazed face.



H. Developed at the King Ranch in Texas. A cross of Shorthorn and Brahman breeds. Dark red, slicked haired and loose hide.



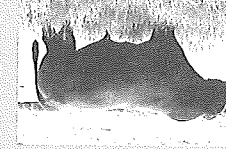
I. Cherry red in color from Saters Valley in south central France.



J. Originated in Germany. Selected for meat, milk and work.



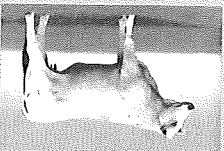
C. Originally called Durhams, this British breed can be red, white or roan in color. They were used for milk production.



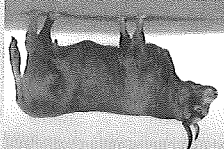
D. Large framed, red and white in color from France. This is the largest French breed of cattle. Originated from breeders in the Maine and Anjou river valleys.



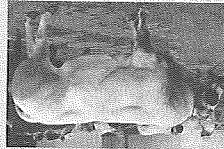
K. Developed as a draft animal, the most important traits are extreme size and strength. They are the largest cattle in the world. The American version is usually black with lots of style.



L. Developed in a cold, rocky, harsh environment this breed's most important traits are small frame size, calving ease and cold weather tolerance.



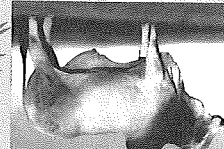
M. Developed as a pure meat animal to produce the largest possible cuts of meat.



N. Developed as a draft and milk breed this breed is known for its strong feet and legs, large capacity and milking ability.



O. Developed in a hot environment this breed's important traits are disease resistance, heat tolerance and hardiness.



BARN TALK

Shooting the Breeze

- How can you tell the breeds apart?
- What new breeds did you discover?

Show Me the Beef

- Which three breeds are popular in your area? Why?
- How would the efficiency of cattle production be affected if producers could only use breeds from one country... say Scotland? (Write your answer to this question here.)

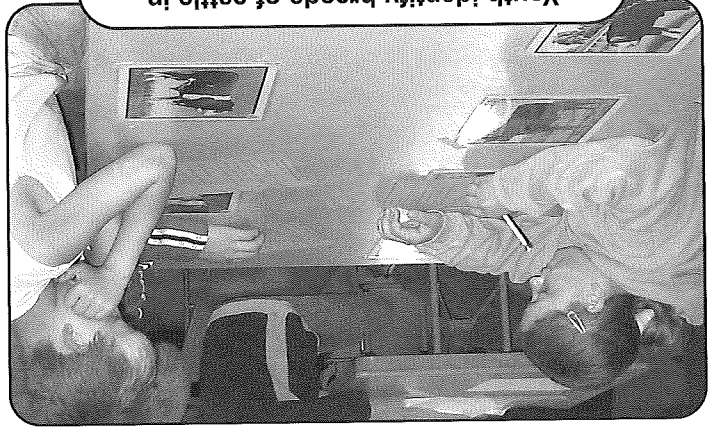
Where's the Beef?

- What beef breed do you and/or your family raise and why?
- How can you use this information in a livestock judging contest?

Beef's Future

- What characteristics are most important to you in deciding what breed you want to raise?

Youth identify breeds of cattle in a skill-a-thon event.



Acknowledgments: *Breeds of Cattle* by Herman R. Purdy, compiled by J. John Dawes, Chanticleer Press, Inc., New York. Activity written by Josh Merrill. **Resources:** Breed Association Web sites (see Beef Resources page).

Breed Origins

FACTS

- ✓ Angus (Scotland)
- Beetalo (U.S., California)
- Belgian Blue (Belgium)
- Charolais (France)
- Chianina (Italy)
- Gelbvieh (Austria)
- ✓ Herford (England)
- Limousin (France)
- Murray Grey (Australia)
- Piedmontese (Italy)
- Pinzgauer (Germany)
- Polled Hereford (U.S., Iowa)
- Santa Gertrudis (U.S., Texas)
- Scotch Highland (Scotland)
- Senepol (Virgin Islands)
- Simmental (Switzerland)
- Zebu (India)

1. Research and write a short paper on your favorite beef breed.

2. Choose three breeds from different areas of the world. Study their characteristics, especially relating to the environment they thrive in. Share with your helper how producers blend these differences to make cattle work better in your environment.

3. Collect ten pictures of beef cattle breeds. Make a matching game to play with your family or friends. Use separate cards so the breed, three characteristics of the breed and where it originated can be matched. You can find great pictures in beef magazines or by writing to breed associations.

4. Talk to a cattle producer and find why the breed they raise was chosen. Give a report on what you find to your family or group.

- 30 Back (or Top) - Along the top from the point of the shoulders to the last rib
- 7 Brisket - Chest of the calf to pastern and from hock to pastern
- 16 Dewlap - Flap of skin on the throat
- 16 Dewlap - Back of hoof
- Forearm - Knee to elbow of front leg
- 3 Forehead - Between eyes

- 11 Forerib - Right behind the shoulder
- 24 Rear Flank - Opposite of fore rib in front of rear leg
- 31 Hindquarter
- 31 Hock - Middle joint of rear leg
- 17 Hoof
- Hook or Hip Bone - Where line ties into hip
- 15 Knee - Middle joint of front leg
- Loin Muscle - From the last rib to the start of the hip
- 19 Lower forerib (Heart Girth) - Along belly line behind front legs
- 1 Muzzle - Nose
- 34 Navel - Center of belly
- 8 Neck

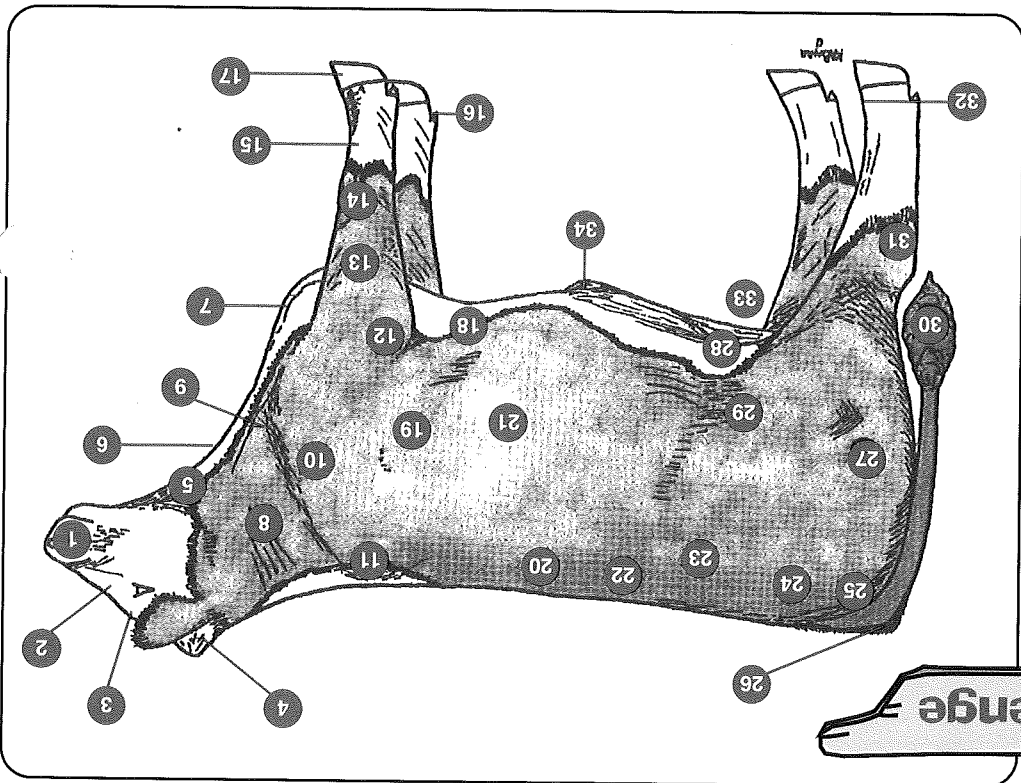
- 25 Pastern - Joint right above the hoof
- 4 Pin Bone - Bone by tail head
- Point of Shoulder - Where front legs meet along the top line
- Ribs
- Rump - Hip
- Shoulder
- Stifle - Muscle at rear flank
- Switch - End of tail
- 26 Tailhead - Where tail attaches to calf
- Throat
- Top of Shoulder
- Udder (female) Cod (steer)
- Scrotum (bull) - Between rear legs

Beef Parts Word Bank

There are 34 parts numbered on the outline of the beef animal. Identify each part. Many of the parts listed in the Beef Parts Word Bank have hints to help you locate them. Explain the locations of each part to your helper.

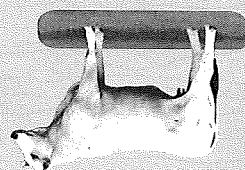
Taking on the Challenge

Do you know where the stifle on a beef animal is located? The hock, the poll, the brisket? In order to better understand the beef project and be able to select quality animals you need to know the basic body parts.



Beef Project Skill: Selecting beef animals
Life Skill: Communicating with others
Education Standard: NS.K-4.3 Life Science
Success Indicator: Identify 30 beef body parts.

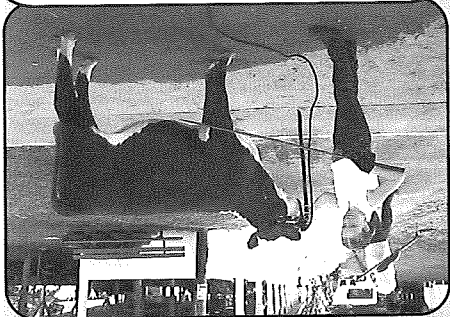
Locating Beef Parts



Beef It Up!

1. On your own animal identify 10 parts.

It's never too early to start learning about beef.



A B R A N G U S C E H J L S
 N A N G U S E P A R T E V C
 B R A H M A N L Y L S Z L O
 M Z C C B D W G B I E I T
 U O K H M O D A A V M R S C
 R N V A I E W T T O I A S H
 R A B R V A N C U E E F H
 A Y G O H E N S I J S L H I
 G A N L R M I S O P I E G
 G W M A I N E A N J O U R H
 R O T I R R E G N A R X E L
 E L Y S I M M E N T A L F A
 Y L Z A B C E D N A M R O N
 D A E F P I N Z G A U E R D
 S G S H O R T H O R N C D E

Breed Word Find

ANGUS
 BARZONA
 BRAHMAN
 BRANGUS
 CHAROLAIS
 CHIANINA
 DEVON
 GALLOWAY
 GELBVIEWH
 HEREFORD
 LIMOUSIN
 MAINE-ANJOU
 MURRAY-GREY
 NORMANDE
 PINZGAUER
 RANGER
 SALEERS
 SCOTCH
 HIGHLAND
 SIMMENTAL
 SHORTHORN
 TARENTHAISE
 WATUSI

Breed Word Bank

FACTS

BarnTalk

- How did you go about determining which part of the animal went where?
- Why is it important to know the parts of a beef animal?

Show Me the Beef

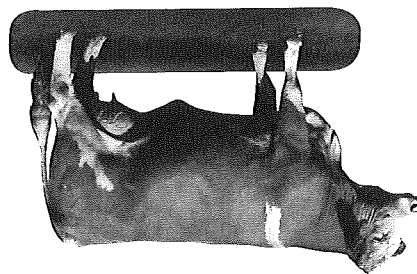
Shooting the Breeze

Where's the Beef?

- How will knowing beef parts help you in talking to your vet?

Beef's Future

- How will knowing the parts be useful to you as you judge beef?



Situation	Safe or Ethical	Unsafe or Unethical
Leaving your calf alone in the clipping chute		
Getting your calf after the ownership deadline		
Clipping in a wet puddle		
Tying the halter around your hand		
Having someone else take care of your calf		
Being calm, quiet and steady		
Helping another exhibitor		
Telling the truth		
Surprising cattle from behind		
Giving more medicine than recommended		
Using whips or cattle prods when showing		
Breaking a rule		
Yelling at your calf		
Using a "hotsheet" on your calf		
Unloading your calf by yourself		
Leading your calf for the first time with an adult		
Withholding feed or water from your calf		
Force feeding or watering your calf		

Listed below are some situations that are safe or ethical and some situations that not safe or ethical. Look at each one and decide which ones are safe or ethical and which ones are not safe and ethical. After you have thought about each one, share your decisions with someone else.

If the situation was not safe discuss what would you do to make it safe.

Taking on the Challenge



Do the right thing.

being ethical (ethical means doing the right thing). Accidents and other problems can be prevented or avoided if you do things the safe and ethical way. Your beef animal depends on you to be safe and treat it in a kind way.

Do you know the dangers when working with beef cattle? Did you know that doing the "safe" thing could help you to treat your animal the right way and be safe at the same time? Do you know that treating your animal the right way is part of

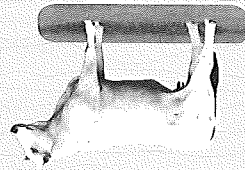
Beef Project Skill: Practicing ethical treatment of animals

Life Skill: Self-Responsibility

Education Standard: NS.K-4 Personal & Social Perspectives

Success Indicator: Identify acceptable safety and ethical practices.

Doing the Right Thing is the Right Thing



Beef Quality Assurance and Ethical Compass

FACTS

Safety and ethics is becoming more and more important to beef cattle producers because many new rules and laws are being created by the government and other regulatory groups. Also, the penalties for not following these guidelines are becoming more and more severe.

To help you know about these new regulations, many new programs have been started. **Beef Quality Assurance (BQA)** is designed to let you know how to properly give a shot, how to properly provide the proper nutrition, how to read and understand the labels on feed bags and medicine bottles, and many other things that help you provide the correct care for your animals.

Ethical Compass is designed to let you know what may or may not be ethical. It contains questions such as: (1) Does the practice violate Food and Drug Administration (FDA) law? Does the practice harm the animal? (3) Would the public be offended? and (4) Does the practice conflict with real world agricultural practices?

Both of these programs and many other programs were developed to help beef producers know and understand sound principles, fundamental practices, recommended procedures that promote safe and ethical production of beef animals.

1. Ask a veterinarian about why it is important to give only the recommended amount of medicine to an animal.
2. Ask a beef producer or a veterinarian about why it is important to know how to give a shot.

Beef It Up!

BARN TALK

Shooting the Breeze

- How did you decide if it was safe or not safe?
- How did you decide if it was ethical or unethical?
- Why is it important to know the difference? How will being safe and ethical help you take better care of your calf?

Where's the Beef?

- How can being ethical make things better in everything that you do?

Beef's Future

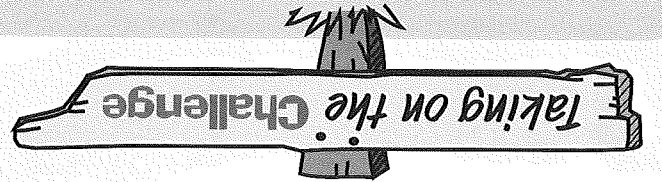
- What can you do to teach others about ethics (doing the right thing)?
- How will understanding what is safe and not safe or what is ethical and unethical help you take better care of your animal?

							9-11 PM
							7-9 PM
							5-7 PM
							3-5 PM
							1-3 PM
							11-1 PM
							8-11 AM
							5-8 AM
Sun.	Sat.	Fri.	Thurs.	Wed.	Tues.	Mon.	

Weekly Planner

Do this activity to see if all of the things you want to do can be done each day. You may have to prioritize. For example feeding, watering, bedding and exercising will need to be done every day, while clipping and hoof trimming will be done less frequently. Don't forget to schedule in your school time, homework, family trips and other activities.

Create a one-week care schedule for a market steer or your own animal for the month before it is shown at the fair. You can use ideas from Beef Facts and from your helper or people you know who raise cattle.



People who raise beef cattle are responsible for the well-being of their animals. Animals have basic needs such as food, water and shelter. When you provide a healthy, stress-free environment for animals you are providing for the animal's welfare. Cattle respond to good care by being calm, contented and growing faster.

If you have a calf for your beef project, how are you going to find time to do all of the things required to make this calf the best it can be?



'Working with beef cattle takes work and planning.'

Time management is a skill you will use all of your life. In this activity you'll plan a schedule to have time available for your calf.

Planning Your Work, Working Your Plan



Beef Project Skill:	Caring for a beef animal
Life Skill:	Planning and organizing
Education Standard:	NS.K-4.1 Science as Inquiry
Success Indicator:	Develop a daily animal care schedule.

1. Give a demonstration on how to care for a beef animal on a daily basis.
2. Visit and talk to a cattle rancher and see how she schedules her time when working with large numbers of cattle.
3. Ask a past 4-H member how she did her daily chores.
4. Share with your helper any similarities you find.
4. Make a list of things you need to do with your project animal daily, every few days, weekly, monthly, yearly, before every show and on show day. Share your list with your helper.

Beef It Up!

- Check daily (or twice a day) for injuries, sickness, unusual things or changes in behavior. Provide shade from the sun and protection from wind, snow and rain.
- Implant, de-worm and treat steers for external parasites.
- Replace dirty bedding daily if steers are stalled.
- Rinse steers to clean the hair and make the hair grow better.
- Brush cattle to calm them and clean and train their hair.
- Exercise tied cattle daily, or let them loose in the evening.
- To finalize preparations for showing, train steers at least three times a week for one month prior to the show.



Healthy calves make for more profit!

Beef Management Tips

- Provide clean, fresh water to cattle at all times. A calf will drink about 8% of its body weight a day in cold weather and up to 19% a day in hot weather.
 - Feed steers about 2.5 pounds dry feed for every 100 pounds of body weight each day.
 - Feed growing cattle about 12-16% crude protein in their diet depending on weight and growth rate.
- Some items to consider include feeding the calves, washing with soap, rinsing, exercising, watering, trimming hooves, getting health papers, clipping hair, cleaning out the bedding, practicing showing/leading, breaking the animal to lead, giving hay and using fly spray.



Calf Daily Care List

Beef's Future

- How can you use planning, such as making a schedule each day, to help you accomplish your goals?

Where's the Beef?

- What other plans or routines do you follow each day?

Show Me the Beef

- What are some creative ways to get everything done that is needed?
- Why is it important to follow a routine or plan when taking care of animals?

Shooting the Breeze

- What did you include in your weekly schedule?
- How did you determine what to include?
- What will you do if you find you don't have enough time to do what is needed? Why?

BARN TALK

Health Sign	Condition
humped-back	Healthy
snotty-nosed	Healthy
frisky	Healthy
yellow, runny feces	Healthy
slow-moving	Healthy
doesn't come to feeder	Unhealthy
ears forward, alert	Unhealthy
shiny hair coat	Unhealthy
moist nose	Unhealthy

Calf Health Chart

Calf identification _____

Breed _____

Age _____

Weather temperature _____

Housing _____

General state of health: Excellent _____ Good _____ Poor _____

Describe how the calf looks and acts: _____

Calf Examination	Signs of a Healthy Calf	Signs of a Sick Calf
Ears and eyes		
Breathing rate		
Heart rate (pulse)		
Temperature		
Fecal material		
Eating habits		
Drinking habits		

1. With others, examine a calf and complete the Calf Health Chart. The model calf made from the 4HCSS calf pattern makes an excellent aid to practice in the living room.

Taking on the Challenge

Much like people, beef cattle have normal ways of looking and acting. When they are sick, their looks and behaviors change. To identify changes in behavior you need to know how cattle act normally. Then you can watch closely and spot sickness. You can possibly avoid a serious illness, a visit by the veterinarian, or even the death of a beef animal. In this activity you'll learn the signs of healthy cattle. Practice your observation skills to make better choices.



2. Match the health tools to the correct definition.

Basic Health Tools	Use
1. Syringe	a. Identify calf
2. Ear tag	b. Treat navels on newborn calves
3. Bander	c. Nip off horns
4. Dehorner	d. Take temperature
5. Ear tagger	e. Castrate calves
6. Tattoo set	f. Administer medicine or vaccines, IM, IV, or subQ
7. Vet wrap	g. Put permanent numbers & letters in the ear
8. Thermometer	h. Administer colostrum or fluids to a newborn calf
9. Iodine sprayer	i. Protect injured joints or hooves
10. Calf feeder bag	j. Pierce ears for inserting plastic tags

3. Draw a line from the health sign to the correct animal condition.

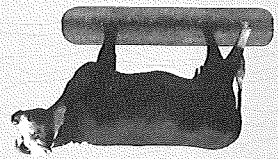
Beef Project Skill: Recognizing a healthy animal

Life Skill: Making decisions by identifying problems

Education Standard: NS.K-4.3 Life Science

Success Indicator: Examine a normal calf.

Recognizing a Healthy Animal





Youth identify livestock equipment needed for their beef projects.

• What can you do to recognize health problems in your beef project?

Beef's Future

• What did you learn about solving problems as you examined a calf?

Where's the Beef?

- How would you describe the health of the animal you examined?
- What are some of the normal habits, attitudes and behaviors of a healthy beef animal?
- What are some characteristics of an unhealthy animal?
- How can weather changes cause your animal to become ill?
- What are some of the costs of a sick animal?

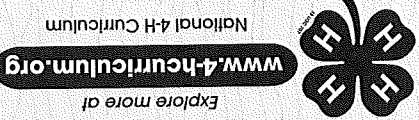
Show Me the Beef

• How would you describe the health of the animal you examined?

BarnTalk

1. Observe an animal or herd of cattle one-half hour a day at different times for three to four days. Notice the behavior patterns of the herd and the individuals in the herd. Keep a journal of how cows relate to one another and to the care the farmer provides. For example, do some cows seem to dominate other cows?
2. Accompany your local veterinarian for one day. Report what you do to your helper.
3. Create a calf health chart for your beef project.

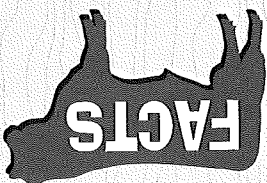
Beef It Up!



- #### How to Take a Calf's Temperature
- Restrain the animal in a head gate or working chute.
 - Gently lift the tail and insert the thermometer into the rectum about two inches.
 - Hold the thermometer in place for about one minute - or by counting 1001, 1002, 1003, etc.
 - Remove the thermometer and wipe with a clean cloth.
 - Read the temperature.

- #### Signs of a Sick Calf
- Poor appetite
 - Temperature higher than normal 102.5 degrees F
 - Droopy ears
 - Rapid, noisy breathing
 - Dry, crusty or runny nose
 - Gaunt gut
 - Limping
 - Patchy haircoat
 - Diarrhea
 - Swelled, tight left side

Signs and Temperature





Feed Word Bank					Use in Ration	
Ingredients	Energy	Protein	Mineral	Vitamin	Water	
<input type="checkbox"/> alfalfa meal		X				
<input type="checkbox"/> barley	X					
<input type="checkbox"/> beef pulp	X					
<input type="checkbox"/> calcium						
<input type="checkbox"/> cobalt						
<input type="checkbox"/> copper						
<input type="checkbox"/> corn						
<input type="checkbox"/> cottonseed meal						
<input type="checkbox"/> milk						
<input type="checkbox"/> grass						
<input type="checkbox"/> iodine						
<input type="checkbox"/> iron						
<input type="checkbox"/> milo						
<input type="checkbox"/> molasses						
<input type="checkbox"/> oats						
<input type="checkbox"/> phosphorus						
<input type="checkbox"/> salt						
<input type="checkbox"/> silage						
<input type="checkbox"/> soybean meal						
<input type="checkbox"/> straw						
<input type="checkbox"/> urea						
<input type="checkbox"/> wheat						

Good luck!
Word Find.
Feed Ingredient
each word in the
activity by finding



What is the best feed for my calf?

Work with your friends to collect at least ten different kinds of feed ingredients fed to beef cattle. For ideas check the ingredients listed in the word bank. If you find a mixed ration that contains several different ingredients, separate the ingredients and identify them. Indicate the ingredients you find by checking them in the Feed Word Bank. Then for each feed ingredient, check whether it is primarily used as a source of protein, mineral, energy, vitamin or water in the ration. Complete this activity by finding each word in the Feed Ingredient Word Find. Good luck!

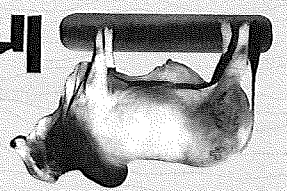
Taking on the Challenge

What do beef cattle eat? How much feed do they need each day? What do different types of feed provide the animal's body? These are just some of the questions you'll explore.

Since feed is so important in raising beef cattle, you'll want to learn as much as you can. In this activity you'll collect and organize different types of feed ingredients.

Beef Project Skill: Feeding beef
Life Skill: Making decisions and categorizing
Education Standard: NS.5-8.3 Life Science
Success Indicator: Identify and categorize feed ingredients.

Picking Feed Ingredients



Shooting the Breeze

- Name and describe two feeds you found.
- What is the most important nutrient?
- What ingredients do you feed your animal?

Show Me the Beef

- What is the main purpose of each of the nutrients? Discuss each one with your helper.
- Why do nutrient requirements vary for different ages of animals?

Where's the Beef?

- How does knowing what the ingredients provide help you feed your animal?

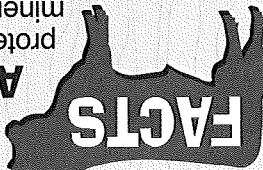
Beef's Future

- What ration change decisions might you make?

Feed Ingredient Word Find

A K A G R A S S N R O C
 F L A C B C I O M I L O
 N I F D M C R Y E H W T
 O M E A O C C O B A L T T
 I F G P L H N E L W L O
 T I P J A F T A F A R N
 A E K S S L A N S R E S
 B A R C U I S S M N M B T E
 B A R L E E Y O N E E S A E
 O L E A S P E A Q A W D
 K C A G R T L L U B L M
 D I S E P O I O D I N C A
 M U T U U A V Z I N C A
 D M L W X T A H E H W Y L
 L A P P H O S P H O R U S
 L A R E N I M M O O Z

Required Nutrients



All feeds include five basic nutrients: protein, energy (carbohydrates and fats), minerals, vitamins and water. **Protein** supplies the materials to make body tissues like muscle, internal organs, bones, blood and skin. **Energy** from carbohydrates and fats enhance movement and produce heat to keep the body warm. Excess energy feeds are stored as fat. **Minerals** help build bones and teeth. **Vitamins** are required for healthy eyes, nasal passages, lungs, blood and strong bones. **Water** is the most important nutrient. It is necessary for digestion, carrying food nutrients and waste products, cooling the body and lubricating the joints. This is how much water calves will drink at different weights:

500 pound calf 5-12 gallons per day
 750 pound calf 7-18 gallons per day
 1000 pound calf 10-24 gallons per day

Feed ingredients are sometimes easier to remember when you think about them in groups.

Animal Protein Products

- Fish by-products
- Fish meal
- Hydrolyzed poultry feathers
- Poultry by-products
- Whey, dried

Forage Products

- Alfalfa hay, ground
- Alfalfa leaf meal
- Corn plant, dehydrated
- Ground grass
- Soybean hay, ground

Grain Products

- Barley
- Corn
- Grain sorghums
- Oats
- Rice: Ground, brown, ground or chipped
- Rye
- Wheat

Plant Protein Products

- Coconut meal
- Cottonseed meal
- Cottonseed, whole processed
- Guar meal
- Linseed meal
- Peanut meal
- Soybean meal

Molasses Products

- Beet molasses
- Cane molasses
- Citrus molasses
- Starch molasses
- Molasses distillers, condensed

Roughage Products

- Beet pulp, dried
- Citrus pulp, dried
- Cottonseed hulls
- Hulls
- Oat hulls
- Peanut hulls
- Rice hulls
- Rice mill by-product
- Straw, ground

By-Products

- Brewers dried grain
- Condensed distiller, solubles
- Corn gluten feed
- Grain Sorghum mill feed
- Malt sprouts
- Oat groats: oat meal, feeding
- Rice bran
- Wheat bran
- Wheat germ meal
- Wheat shorts

1. Visit a local feed mill and see how feed ingredients are mixed, weighed and blended to make a complete ration.

2. Collect at least five feed tags from different feed companies and compare them.

Beef It Up!

The Differences

Calf #2 Nose Print

Nose print two calves and compare the prints. Identify and record the differences you observe. Then ask your helper if he/she can match a third print from your calf to the original print.

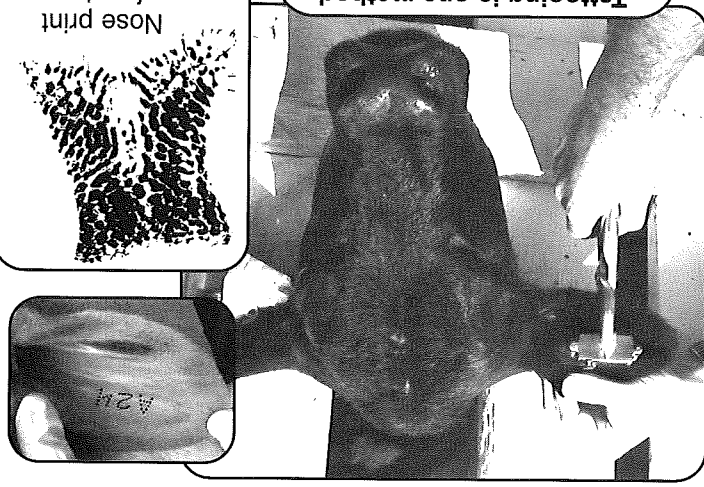


Calf #1 Nose Print

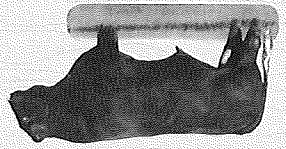
The nose tips of beef cattle are also made up of a unique pattern of skin folds that form a particular print or identification of a calf. These skin patterns are set before birth and controlled by one of 200,000 pairs of genes possessed by cattle. Prints are one of the traits not affected by management practices such as feeding level, housing and temperature control. Here is your chance to test your detective skills as you learn how to learn.

Every day in this country, police officers check crime scenes for fingerprints. They know that each person has a unique, distinct pattern of ridges on the skin of finger tips. Since only one person has each fingerprint, prints are a perfect identification of a person.

Tattooing is one method of beef identification.



Where Oh Where Is My Calf?



Beef Project Skill: Identifying your animal
Life Skill: Decision making
Education Standard: NS.5-8.3 Life Science
Success Indicator: Nose print a beef animal.

Shooting the Breeze

- What are some of the reasons for identifying a beef animal?
- What did you do to get the clearest possible nose print?
- What differences did you observe?

Show Me the Beef

- How would permanent individual identification of beef cattle help the beef industry and individual producers?
- What types of beef cattle research and evaluations would be very difficult to monitor without individual identification of calves?

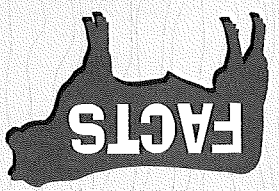
Where's the Beef?

- What technologies are used for ID of products, animals or people in everyday life (i.e. grocery store bar code scanners)?

Beef's Future

- What kind of research experiment could you conduct to discover new technologies?

Cattle Identification



It is important to be able to identify and keep track of your beef animal. At many shows your calf may be the same size and color of many other animals. It will also be helpful when keeping records on medicines and calving dates. Identification is also important in case your animal is lost or stolen.

Nose Printing Tips

- Materials Needed**
Nose, paper towel, paper, ink pad (Micropore II).
- Procedure**
- Halter calf in head gate
 - Dry calf's nose
 - Place ink pad on nose
 - Lightly place paper on nose to print
 - Don't rock or rotate paper
 - Check print and repeat printing process

Ear tagging is the most popular form of identification.

Plastic or metal tags are inserted in the ear using a special applicator tool. The tag is inserted between the ribs of the ear. Some tags hook back into themselves after going through the ear. Some tags have a plastic back that locks onto the back of the tag to keep it from pulling back through the hole.

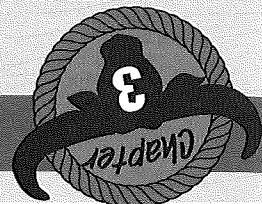
Radio transponders can be used in livestock for identification. Transponder sizes range from rice grain to credit-card. Larger transponders can be read from a greater distance. Each transponder has its own unique code. Transponders don't need batteries. Hand held units read the chips in the transponders.

Freeze branding is a relatively painless way to identify livestock. Liquid nitrogen is used to freeze the hair follicles in the skin causing the hair to grow in white. Freeze branding tools are used to make specific brands.

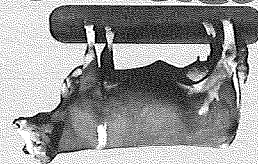
Tattoos are usually applied to the inside of the ear or sometimes the lower lip. The area to have the tattoo applied should be cleaned thoroughly with rubbing alcohol, then apply the ink to the area and crimp in the new tattoo with a tattoo crimping tool. In some cases ink is re-applied after crimping.

1. Find out which method of identification nearby beef producers use. Give a report to beef project members.





Judging Beef

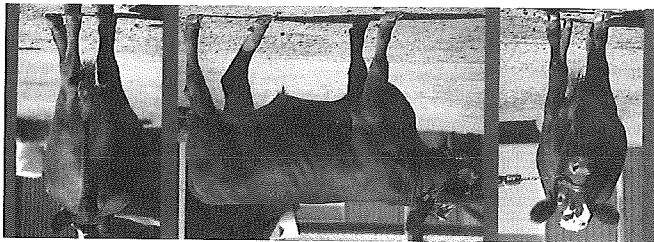


Beef Project Skill: Selecting beef cattle
Life Skill: Making decisions
Education Standard: NS.5-8.3 Life Science
Success Indicator: Compare and describe differences between two beef animals.

Choosing the right animal is one of the most important steps in being a successful cattle person. Today's industry is looking for well muscled cattle that are structurally correct and can move freely and easily. The heifers need to be feminine, while steers need to show heavier muscling. One of the most important traits is width and thickness throughout the animal. Heifers need to show width and arch to their ribs, while the steers need to possess wide, natural muscling along their top and rump with this thickness extending far down their quarter.

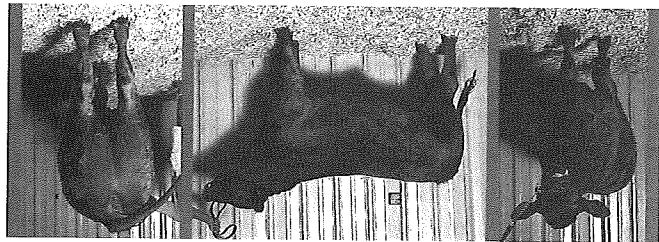
Taking on the Challenge

Ready to practice your judging skills? Look at the two pairs of beef cattle—a steer pair and a heifer pair. Compare the two cattle in each pair. Write the comparative terms that you would use to compare each animal against the other. Examples of terms to use are shown in Beef Facts. Next, place one animal of each pair over the other and write reasons for your choice. An outline is provided to help you organize your reasons. Reasons for the two pairs are in the Answer Key in the Beef Helper's Guide.

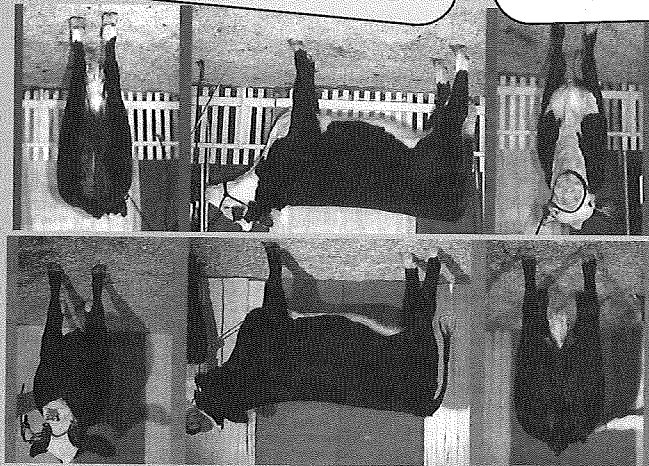


Market Steers Pair 1

A



B



A

Breeding Heifers Pair 2

B

Market Steers I would use:
A _____
B _____
 I placed _____ over _____ because _____
 was _____ than _____
 I placed _____ second because she was _____

Breeding Heifers I would use:
A _____
B _____
 I placed _____ over _____ because _____
 was _____ than _____
 I placed _____ second because she was _____



4-H members look at their beef projects on the rail.

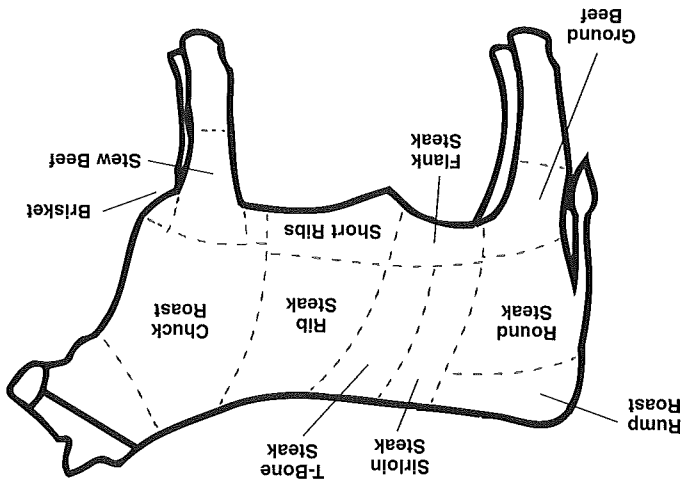
Cooking Method	Price per Pound	Wholesale Cut	Retail Cuts 1-10

Shopping for Beef

Select ten of the retail cuts shown on the diagram of the beef outline. List them on the chart. Find each of the cuts you selected at a grocery store or supermarket. If you can't find a cut, ask the service person why it is not available. Complete the chart for all ten cuts you list.

Taking on the Challenge

Shopping for beef in your grocery store can be very confusing. You may find 20 or more different retail cuts. Knowing each of these cuts and the part of the carcass each comes from will help you choose the right one for any occasion. Once you are familiar with all the retail cuts you can select the right preparation methods.



Adaptation from Your 4-H Beef Project Manual, Michigan State University.

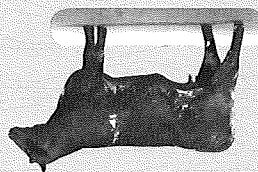
Beef Project Skill: Selecting and preparing retail beef cuts

Life Skill: Learning to learn

Education Standard: NS.5-8.3 Life Science

Success Indicator: Identify 10 meat cuts and cook one.

Shopping for Beef



- What cuts of meat did you find at the meat counter?
- What is your family's favorite cut of beef? Why?
- Talk to your parents about cooking methods for different cuts of beef.
- **Show Me the Beef**
- Why are some cuts more or less tender than other retail cuts?

Where's the Beef?

- Think about other decisions you make daily. What sources of information help you make these decisions?

Beef's Future

- Think of a tough decision you currently face in which you must choose between two or more alternatives. What do you need to consider to make this decision?

Adapted by Larry Tibbs from A Grill's Best Friend activity in original beef activity guide.

FACTS

One of the objectives of cooking meat is to develop tenderness. Cooking by the appropriate method will help develop tenderness. Beef cuts that are tender can be cooked by dry heat methods such as grilling, stir-frying, roasting and broiling. Less tender cuts are prepared by moist heat methods such as braising and simmering.

Pan-broiling

- Place meat in heavy frying pan
- Do not add fat or water
- Do not cover
- Cook slowly, turning occasionally
- Pour fat from pan as it accumulates
- Brown meat on both sides
- Cook to desired doneness
- Season as desired

Pan-frying

- Brown meat on both sides in small amount of fat
- Season with salt and pepper as desired
- Do not cover
- Cook at moderate temperature, turning occasionally, until done

Braising

- Brown meat on all sides in fat using a heavy utensil
- Season with salt and pepper as desired
- Add small amount of liquid
- Cover tightly
- Cook at low temperature until tender

Cooking in Liquid

- Brown meat on all sides in its own fat or drippings, if desired
- Season with salt and pepper as desired
- Cover with liquid, cover kettle, cook below boiling point until tender
- Add vegetables just long enough before serving to be cooked



- Preheat oven broiler or outdoor grill
- Place 1-inch steaks or patties 2-3 inches from heat or 3-5 inches for thicker cuts
- Cook until first side of meat is brown
- Season as desired
- Turn and broil second side until done

Broiling/Grilling

- Place meat fat side up on rack in open roasting pan
- Do not add water. Do not cover.
- Roast in slow oven 325 degrees to desired doneness as shown on meat thermometer

Roasting

- Season with salt and pepper, if desired
- Place meat fat side up on rack in open roasting pan
- Do not add water. Do not cover.
- Roast in slow oven 325 degrees to desired doneness as shown on meat thermometer

Less Tender Cuts

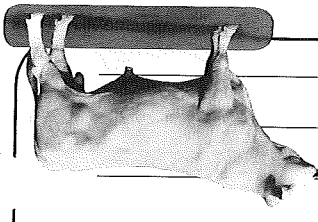
Tender cuts, like the rib, short loin and sirloin, are best cooked by dry heat methods such as broiling, stir-frying and roasting. Less tender cuts, like the chuck, round, flank and brisket, are best cooked by moist heat methods such as braising and cooking in liquid as in a slow electric cooker. The longer cooking time at lower temperatures with moisture helps soften some of the connective tissue.

1. Participate in a meat judging and identification activity with your family or group.

Beef It Up!

2. Give a presentation about the nutritional value and characteristics of a beef cut and demonstrate how to cook it.

3. Help with a beef promotional activity at a mall, supermarket or other event.



Item	Where Found	Use
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Beef By-product Search

Leather Product

1. _____ Baseballs
2. _____ Footballs
3. _____ Volleyballs
4. _____ Soccer Balls
5. _____ Baseball Gloves
6. _____ Basketballs
7. _____ Pairs of Shoes

Number of products from one hide

A. 20
B. 18
C. 12
D. 12
E. 18
F. 18
G. 144



Leather is an important by-product of beef animals.

Meat is not the only thing you get from beef cattle. Other products are called "by-products." Beef by-products are items made from cattle in addition to the main product, meat. They are often made from "waste" parts of the animal after the meat has been processed.

Many of our sports activities include objects that we use in our daily lives that are made from leather. In the activity below match the leather item with the number of the item available from the hide of one beef animal. From the information in the Beef Facts find other beef by-products. List where they are found and what are their uses.

Taking on the Challenge

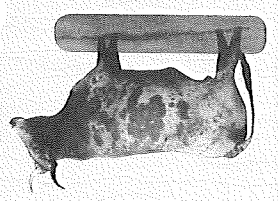
Beef Project Skill: Appreciating beef by-products

Life Skill: Acquiring knowledge

Education Standard: NS.K-4.5 Science & Technology

Success Indicator: Identify 20 beef by-products.

Recognizing Beef By-products



BARN TALK

- Which products were you surprised to learn came from beef animals?

Show Me the Beef

- What would you tell a classmate who says beef cattle should be used only for meat?

Where's the Beef?

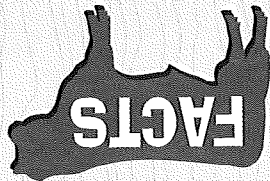
- Why do you learn and remember more easily things you have seen, felt, smelled, or heard compared to things you've just read about?

Beef's Future

- What beef by-products have you used today?

Beef Talk Words By-products

Not All Beef



About 54% of the live weight of cattle becomes beef. The rest is made into other things such as:

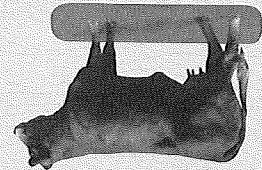
- **Bone:** Dice, teething rings, glue, feed and fertilizer.
- **Hide:** Leather, fats and oils.
- **Gelatin:** Photographic film.
- **Glycerin:** Explosives and cosmetics.
- **Hair:** Artist brushes and insulation.
- **Chemicals:** Pesticides, oils and lubrication for tires.
- **Fats:** Candles, antirreeze, paint and explosives.
- **Blood:** Shoe polish and cancer research.
- **Glands:** Insulin and vitamins.

How many pieces of sports equipment can be made from the hide of one beef animal?

144 Baseballs OR
20 Footballs OR
18 Volleyballs OR
12 Basketballs OR
12 Baseball Gloves
Wilson Sporting Goods Co.

Beef It Up!

1. Collect as many of the 25 by-product items listed as you can and make a display for a fair or exhibit. Tell your class at school about the useful things from cattle besides meat.



Halter Breaking Your Calf

Beef Project Skill: Halter breaking a calf
Life Skill: Decision making
Education Standard: NS.5-8.3 Life Science
Success Indicator: Practice halter breaking a calf.

Calf Halter Breaking Demonstration Outline

Title
 Introduction
 Main Points
 Conclusion

How do you think this situation could have been avoided? Read each statement, choose the answer you feel is correct and write it in the space provided. Discuss each of your answers with your helper. Then demonstrate to your family or project group how you would halter break a calf. List the main points you included in your demonstration in the outline.

- Calves need to be broke to lead
 - One week before the show
 - One month before the show
 - Several months before the show
 - show when they are still calves
- The first step to halter breaking a calf is
 - Letting the calf drag a halter for a week before tying it up
 - Tranquilizing the calf
 - Buying batteries for the electric cattle prod
 - Finding someone that weighs more than the calf to drag the calf around
 - Tying the calf up for short periods of time while watching it constantly
 - Trading the cattle prod in for a pitchfork
- The second step is
 - Local body builder
 - Patent, calm person
 - Take the calf to sale barn and get another
 - Keep working until things go right
 - Lose your temper and hit things
 - Play a radio in the barn
 - Yell around them
 - Throw firecrackers under them
- The third step is
 - Putting on your spurs and riding the calf around the barn yelling YEEHAW!
 - Letting your calf run free around the barn and try to at least hold on to the end of the halter
 - Leading your calf to feed and water everyday
- Calves are trained to lead by using a
 - Tractor
 - Local body builder
 - Patent, calm person
 - Take the calf to sale barn and get another
 - Keep working until things go right
 - Lose your temper and hit things
 - Play a radio in the barn
 - Yell around them
 - Throw firecrackers under them
- When things go wrong
 - Take the calf to sale barn and get another
 - Keep working until things go right
 - Lose your temper and hit things
 - Play a radio in the barn
 - Yell around them
 - Throw firecrackers under them
- To help a calf get used to strange noises at the fair you should
 - Play a radio in the barn
 - Yell around them
 - Throw firecrackers under them
- To help the calf get used to new environments you should
 - Take them to some open shows
 - Walk them in the yard and barn lot with supervision
 - Take them to the movies
 - A and B, not C
- Calves need to wear halters
 - Only long enough to break them to lead and then just when you are working with them
 - From the time you first catch them until you send them to market
 - All day because the calf likes it when the halter grows into its nose
- Calves need to be tied
 - The whole time you own them so that they won't get away
 - All day long because they are easier to catch
 - A few hours a day but only when you are around to watch them



Taking my calf for a walk.

Freddy woke up one week before the county fair and decided maybe he needed to start breaking his calf to lead. After dragging the calf behind the tractor for an hour, Freddy decided that was good enough. At the fair, Freddy couldn't believe that his calf got away from him and crashed into an expensive new car. Freddy decided that he didn't want to show cattle anymore.

Taking on the Challenge

When you exhibit your animal you want to show it to its best appearance. You don't want to be frustrated by your animal acting up or getting away. This activity will help you successfully break your calf to lead.

Shooting the Breeze

- How did you get your calf used to a halter?
- What happened when you first tried to get your calf to lead?
- What happened when you tried to teach your calf to stand correctly?
- Show Me the Beef
 - What did you learn about your calf while training it to lead?
 - Why are positive methods often better than negative ones?

Where's the Beef?

- How do you like to learn new things?
- From all the ways you could train your calf how did you decide which one to try?

Beef's Future

- What will you do different the next time you train a calf?

Adapted with permission from Kansas 4-H Beef Curriculum Notebook by Josh Merrill, Larry Tibbs and Jackie Buckley.

Beef Talk Words

Dual purpose



Halter Breaking

Types of Halters. Some people prefer halters with chains, others rope halters. A halter with a padded nose band is recommended to prevent serious injury and scarring of the nose. A correctly fitted halter will apply pressure over the nose, not behind the ears. For proper fit, the nose piece should be up on the nose just under the eyes.

Halter Breaking by Dragging the Halter. Put the halter on your calf, pull on the lead rope a couple of times and then drop the rope. Leave the halter on the calf, the rope will drag on the ground. As the calf walks, it will step on the lead rope and pull its head around. This will teach the calf to respond to pressure. Let the calf wear the halter and drag the lead rope for several days.

Halter Breaking by Tying. Tie your calf to a post in a slipknot. The calf learns to stop the pressure on his head by coming forward. For several days, a calf may be tied in its stall between feeding, watering and exercise periods. The length of the rope should be long enough for the calf to eat and lie down, but not so long as to get tangled up. Do not leave an unbroken calf tied and unattended.

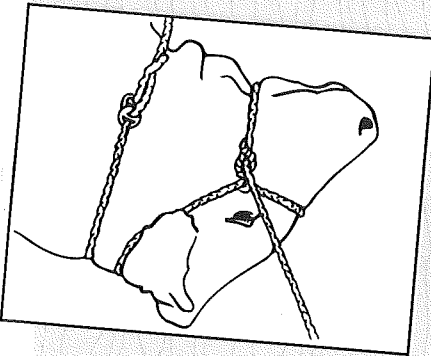
Training to Lead. When teaching to lead, pull on the lead rope and then give slack so the animal comes forward.

Give and take, don't jerk on the rope, release the pressure as the calf responds. When the animal learns that the rope loosens when it walks, it will lead. Ask someone to walk behind the calf to make it move when it stops instead of pulling on its head constantly. Reward the calf with a handful of hay or feed.

No, No's. There are several methods not to use when training a calf to lead. Never —

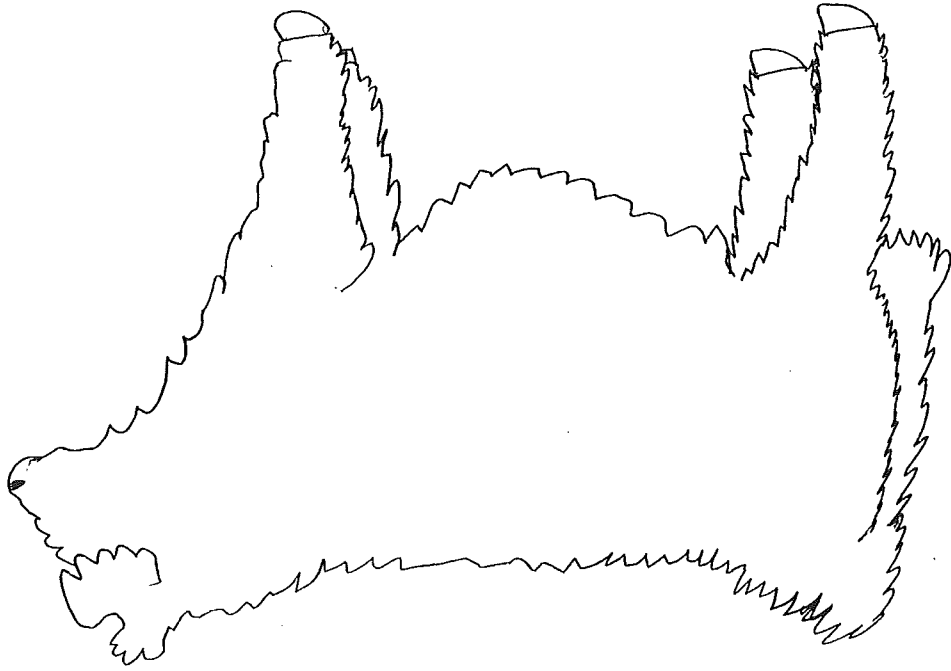
- Tie the calf behind a vehicle and pull
- Hit the calf with stick or whip
- Pull on the rope with hard jerks
- Use an "electric prod"

Training for the Show Ring. As soon as the calf begins to lead, begin daily exercise and practice proper show ring procedures. Daily exercise is important to condition the animal and have it respond to the handler. Daily exercise should include feet placement. This will prepare your animal for the show ring.



Beef It Up!

1. Watch a video on beef cattle showmanship and share what you discover with your project group.
2. Attend a fair and watch a beef showmanship class.

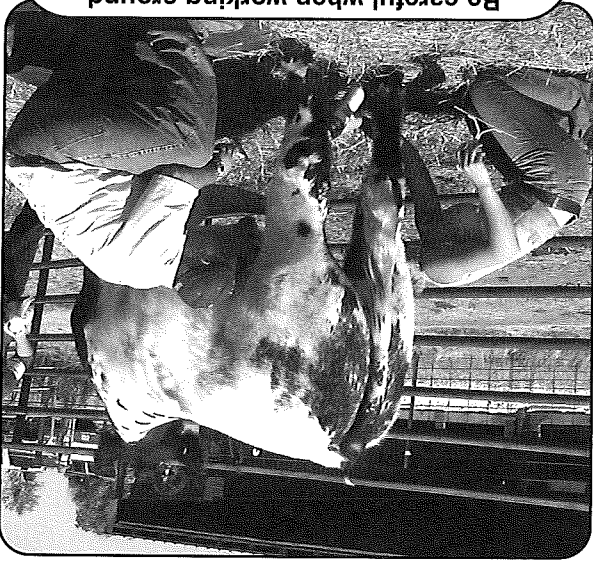


Draw lines on the calf outline showing how you think it needs to look after you have finished grooming and clipping it. Use arrows to show the direction the hair should be worked (brushed and blown). Shade in the areas to be shaved. Now use a live animal to demonstrate three grooming techniques to your family or helper.

Taking on the Challenge

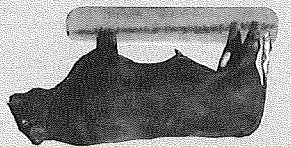
Setting a goal and working towards that goal is the principle involved with successful grooming of a show animal. You need to be able to picture the ideal fitted animal in your mind and then groom your animal to look like this ideal. It is frustrating to work hard all year long and then be scored low in showmanship because of a poor fitting job. In this activity you'll practice showing your ideal animal on paper and outlining how to train the hair.

Be careful when working around legs and feet. Your calf might kick or step on you.



Beef Project Skill: Grooming a steer for show.
Life Skill: Communicating with others through illustrations
Education Standard: NS.5-8.3 Life Science
Success Indicator: Demonstrate how to fit a steer for show.

Fitting a Steer



BarnTalk

Shooting the Breeze

- How did you show on the outline how to groom a steer for show?
- How did your clipped calf look in comparison to the ideal you pictured?
- Which part of the calf was the easiest to clip?

Show Me the Beef

- Why are beef animals fitted the way they are?

Where's the Beef?

- What skills did you practice by completing the drawing and demonstrating?

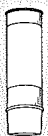
Beef's Future

- What will you do differently next time?

Show Box Supplies

FACTS

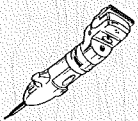
- Adhesive - Used to hold the calf's hair in place.



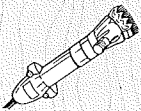
- Scotch comb - Used to style the calf's hair.



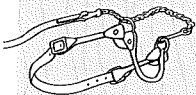
- Flathead clippers - Used for clipping where a shaved look is desired.



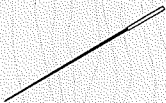
- Sheep head clippers - Used for blocking and most show day clipping.



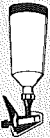
- Show halter - Dressier appearing halter for the showing.



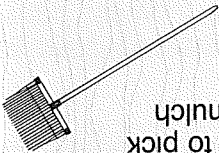
- Show stick - Used for setting the calf's feet and calming the animal in the showing.



- Spray bottle - Used for applying any liquid hair preparation.

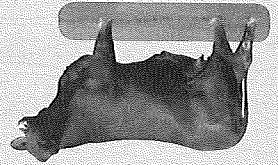


- Stall fork (bark rake) - Used to pick manure out of the stall if a mulch bedding is used.



Beef It Up!

1. Attend a cattle show and watch the exhibitors fit their cattle.
2. Help someone fit a calf for show.



Showing Beef Cattle

Beef Project Skill: Showing beef cattle
Life Skill: Self-discipline
Education Standard: NS.K-4.3 Life Science
Success Indicator: Demonstrate beef showmanship techniques.

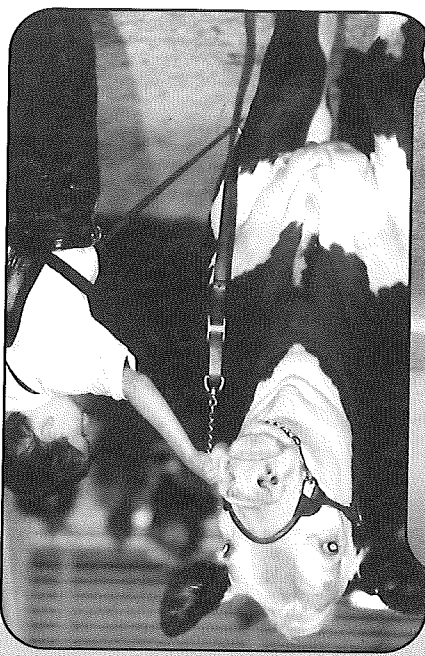
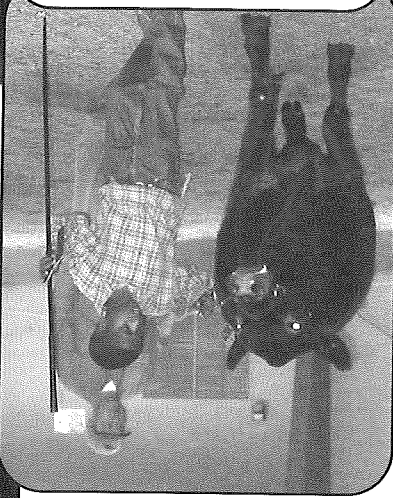
Once you have selected your animal and fed it to its recommended weight, you want to show your animal to its best ability. This means you must know how to move around the showing correctly. The show person that makes the least number of mistakes when showing an animal in showmanship, taking into consideration the looks of the animal, will walk out the winner.

Taking on the Challenge

Susie is not having a good day in the showing. Because of the shorts she was wearing, Susie scratched her leg on a wire walking into the ring. Then, when she walked in on the right side of the ring and turned to the left her calf would not follow her. When she finally got to where she needed to be, her calf wouldn't put its feet in the right spot. Susie gave up on the feet and just scratched the calf's belly. However, she scratched a little too hard, which scared her calf and it ran away. Susie sat

Now practice being the judge for a friend. As your friend shows an animal mark each of the 12 showmanship tips in Beef Facts with a check mark that your friend does successfully. Then talk about each tip with your friend. Finally, ask your friend to play the judge for you while you practice the 12 showmanship tips.

Parading my show heifer.



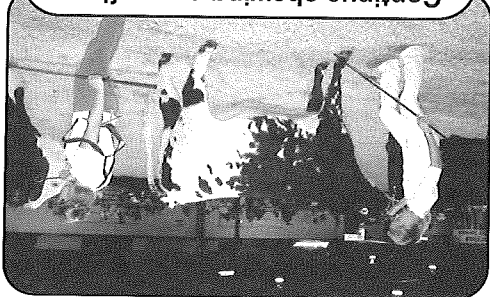
Good positioning of the show animal. Lead strap in the left hand, showstick in the right hand with the animal's head up and alert.

Suggestions for Susie

down and cried in the middle of the ring. After the show Susie asks you what she needs to do different next time. List at least five things that you would discuss with Susie so she can improve her showmanship skills.

1. _____
2. _____
3. _____
4. _____
5. _____

Continue showing even after the awards are given.



1. Attend a local or major livestock show and observe the showmanship skills of exhibitors. Discuss the good and bad points observed with your helper or a family member.
2. Demonstrate proper beef showmanship techniques for a 4-H group or other group.
3. Conduct a beef showmanship contest and have it video taped. Critique how you did after viewing the tape.

Beef It Up!

- Good showmanship improves the look of your calf while letting you exhibit your skills in front of a crowd. Many things can make an individual stand out in a showmanship class.
- Wear a nice button-down shirt with jeans in a showring.
- Carry a scotch comb in the back pocket of your jeans so you can fix the animal's hair if it gets messed up.
- When walking, place the lead strap of the halter in your right hand and the showstick in your left hand. Let the extra strap dangle from your right hand. If it touches the ground it is too long.
- Upon entering the ring, walk forward in a clockwise direction on the left side of the animal.
- When turning your calf, always try to turn to your right (into the animal). If you go left, your calf might step on you.
- Keep adequate space (3-4 feet) between your calf and others.
- Always keep your eye on the judge. You don't want to miss his instructions.
- When you are positioning the calf, face towards the animal. To do this, put the lead strap in your left hand and your showstick in your right hand. Hold the calf's head up and alert.
- Once you are stopped and have the halter in the correct hand, you need to "set up" the legs. The legs need to be square under the animal's body. To move any "un-set" feet, use your showstick. If a foot needs to be moved backwards, gently push the point of the stick into the skin between the toes until the hoof is placed correctly. If the calf's foot is too far back, put the showstick under the calf's dewclaw and gently pull until the hoof is in the desired spot. Train your calf to stand still for at least ten minutes at a time.
- After the feet are correctly set, make sure the calf's top is straight. Some animals may be "high-joined." If your calf is one of these, you can use your showstick to push it down making the top appear straighter.
- When the animal is set, you can both relax a little bit. Keep the animal calm by scratching its belly with your showstick. Remember this is a tactic used to keep the calf calm, so don't try to go too fast or hard with the stick. A slow, easy pace is desired.
- Always be courteous to others in the showring. Never block other cattle from the judge's view. When circling, be sure to help a stalled calf in front of you by tapping its tail with your showstick or wait for the ring helper. Keep line straight.

Showmanship Tips



BarnTalk

- What did you enjoy most about showing your calf?
- What is the most difficult aspect of showing cattle?
- Why is being courteous to others important in the showring?

Show Me the Beef

Shooting the Breeze

Where's the Beef?

- Where else is it important to be a good sport?
- How did you handle the situation the last time you found it hard to be a good sport?

Beef's Future

- There will be times when you may feel you have been judged unfairly by an official at a show or contest. What ways can you best react to this situation?

Beef Talk 1

This is the first of three Beef Talk glossaries for you to use to increase your beef vocabulary. See how many of these words your family knows.

Concentrate - Feed that is high in energy, low in fiber and highly digestible.

Condition - Level of an animal's fatness which can be controlled by type and amount of feed.

Conformation - The shape and design of an animal.

Cow - Sexually mature female bovine animal that has usually produced a calf.

Cow-calf operation - Management unit that maintains a breeding herd and produces calves that are kept until weaned.

Crossbred - Animal produced by crossing two or more breeds.

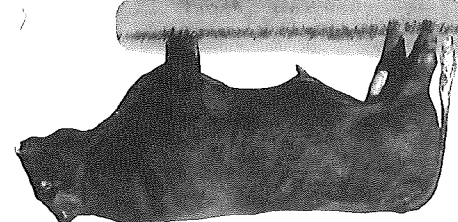
Crossbreeding - Mating animals from different breeds. Utilized to take advantage of hybrid vigor (heterosis).

Cud - Bolus of feed that cattle regurgitate for further chewing.

Cull - To remove an animal from a herd due to poor production, poor type or illness.

Calf crop - Number or percentage of calves produced within a herd in a given year relative to the number of cows and heifers in the breeding herd.

Calve - Giving birth to a calf. Same as parturition.



Breed - Cattle of common origin and having characteristics that distinguish them from other groups within the same species.

Breeder - In most beef breed associations, the owner of the dam of a calf at the time she was mated or bred to produce that calf.

British breeds - Breeds of cattle, such as Angus, Hereford and Shorthorn, originating in Great Britain.

Bull - Bovine male. Usually refers to male animals of breeding age.

Bullock - Young bull, typically less than 20 months of age.

By-product - Product made by further processing of leftovers after the primary product has been made.

Calf - Young male or female bovine animal under one year of age.

Calf crop - Number or percentage of calves produced within a herd in a given year relative to the number of cows and heifers in the breeding herd.

Calve - Giving birth to a calf. Same as parturition.

Colostrum - First milk given by a female following delivery of her calf. It is high in antibodies that protect the calf from invading microorganisms.

A

Adhesive - A product used to groom cattle hair that is located on the legs, tailhead.

Auction - Process where cattle are sold to the highest bidder.

Afterbirth - The placenta and often membranes associated with the fetus that are expelled from the uterus at calving.

Average daily gain - Pounds gained from a starting point to an ending point divided by the number of days.

B

Backfat - Amount of fat over the animal's back, usually measured at the twelfth to thirteenth rib.

Beef - Meat from cattle (bovine species) other than calves, meat from calves is called veal.

Birth weight (BW or B.Wt.) - Weight of the calf measured within 24 hours of its birth.

Bloom - Desirable condition of skin and hair.

Bovine - Refers to a general family grouping of cattle.

Brand - (1) Permanent identification of cattle, usually made on the hide with hot-iron or freeze branding. (2) Process of branding.

D

Dam - The female parent.

Devorm - Administering a product to an animal to prevent or destroy any worms it may have inside.

Dual purpose - Used for both meat and milk.

E

Ear tag - Method of

identification by which a numbered, lettered and/or colored tag is placed in the ear.

Environment - The habitat in which an animal lives and grows.

European breed - Breed

originating in European countries other than England (cattle from England are called British breeds); a larger dual-purpose breed such as Charolais, Simmental and Limousin; also called continental or exotic breed in the United States.

F

Feeder cattle - Cattle that

need further feeding for that period from weaning to finishing prior to slaughter.

Feedlot - Enterprise in which cattle are fed grain and other concentrates for usually 90-120 days. Feedlots range in size from less than 100-head capacity to many thousands.

Feedyard - Cattle-feeding facility. Also called a feedlot.

Finish - To fatten a market animal. Also, the degree of external fatness of such an animal. See condition.

Fitted - Describing an animal conditioned, trained and groomed for show or sale.

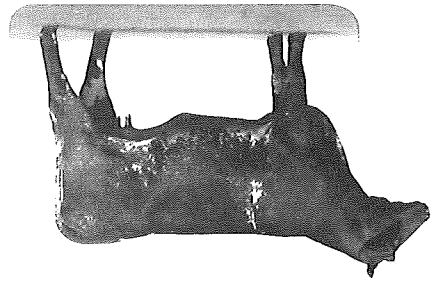
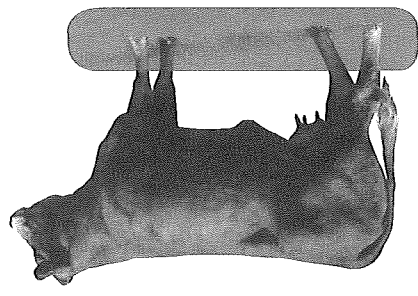
Forage - Vegetable material in a fresh (pasture), dried (hay) or ensiled (silage) state that is fed to livestock.

Frame size - A measure of hip or shoulder height used to determine skeletal size of cattle.

G

Get - Calves sired by the same bull.

Grade animals - Beef animals that have one or both parents that are not registered and recorded.



H

Heifer - Young female bovine cow prior to the time that she has produced her first calf.

Herd - Group of cattle (usually cows) that are in a similar management program.

Hide - Skins from cattle.

Hooks - Hip bones.

L

Legume - Any plant type within the family Leguminosae, such as pea, bean, alfalfa and clover.

M

Marbling - Flecks of intramuscular fat distributed in muscle tissue. Marbling is usually evaluated in the rib eye between the twelfth and thirteenth ribs.

Market weight - The weight of the animal when sold for processing.

Meat - Tissues of the animal body that are used for food.

National Cattlemen's Beef Association (NCBA) - A national organization that takes part in legislation, research and education for the beef industry.

Nutrition - The result of taking in food to nourish the body and promote growth and body processes.

Nose print - An ink print of animal's nose used for identification.

Packing plant - Facility in which cattle are slaughtered and processed.

Parturition - The process of giving birth or calving.

Pin bones - The visible portion of the pelvis; protrudes on each side of the rectum.

Point of balance - The point on the animal (the shoulder) that determines which way an animal will move. If the handler stands behind it, the animal will move forward; if the handler stands in front of it, the animal will move backwards.

Polled - An animal that doesn't have horns because of its genetic traits.

Post legged - An animal that has extremely straight hind legs.

Primal cut - The first cuts that a beef carcass is broken into. Examples are the chuck, loin, rib and rump.

Processing plant - A location where beef carcasses are broken down into wholesales and retail cuts.

N

Protein - Compounds of many amino acids that contain carbon, hydrogen, oxygen, nitrogen and sometimes sulfur. They are an essential part of all living organisms.

Purebred - Animal eligible for registry with a recognized breed association.

Quality grade - USDA grade determined by the amount of intramuscular fat (marbling) and the age of the animal.

Ration - Feed fed to an animal during a 24-hour period.

Retail cuts - Cuts of beef in sizes that are purchased by the consumer.

Roughage - Feed that is high in fiber, relatively low in digestible nutrients and relatively low in energy (e.g., hay, straw, silage and pasture).

Ruminant - Mammal whose stomach has four parts - rumen, reticulum, omasum and abomasum. Cattle, sheep, goats, deer and elk are ruminants.

Scotch comb - A metal comb used for grooming beef cattle.

Show halter - Usually a leather halter that has a chain that goes under the chin for animal control and a leather lead strap. This halter is only used in the showring.

Show stick - A wooden or metal stick with a hook on the end to set the feet of a beef animal.

Silage - Forage, corn fodder or sorghum preserved by fermentation that produces acids similar to the acids used to make pickled foods for people.

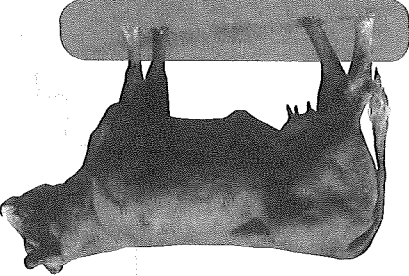
Sire - Male parent.

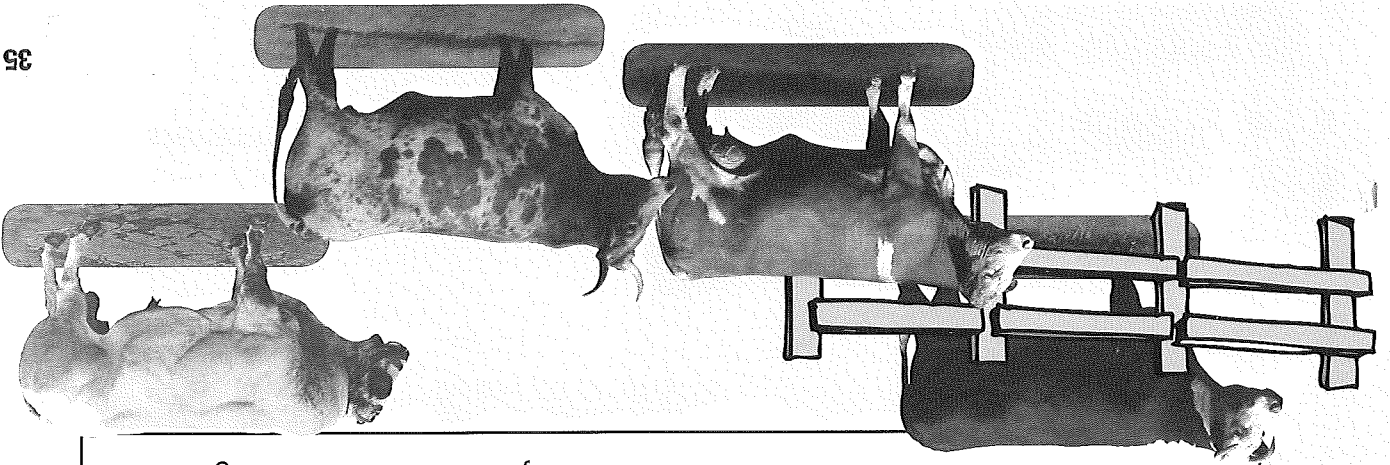
Slip knot - A method to tie a halter in which pulling on the free end will untie the knot.

Steer - Bovine male castrated prior to puberty.

Stockers - Steer or heifer calves run on grass before going to feedlot. Sometimes also referred to as backgrounding.

S





Word Bank

Forage
Get
Hide
Hooks
Legume
Marbling
Meat
Nose print
Parturition
Pin bones
Protein
Purebred
Roughage
Ruminant
Steer
Stockers
Weaning

Beef Glossary Word Find

Auction
Backfat
Beef
Bloom
Bovine
Calve
Colostrum
Concentrate
Condition
Conformation
Cow
Crossbred
Cud
Dam
Deworm
Feedlot
Feedyard

G R N H C P R B B T M C D E C
N U O D O O L O A O R A T E O
I M I R R O L F U O V A D S N
L I T N O A K O S G R I E T D
B N A M O C Y S S T H N N E I
R A M C A I B D N T O A W E T
A N R B A R T E E B R O G R I
M T O F E L C N E R U C E O
F Y F D X N V I U M F D M O N
E L N B O F F E G A R O F S W
E E O C P A R T U R I T I O N
B G C T N I R P E S O N G E T
P U R E B R E D W E A N I N G
D M E A T S R E K C O T S Y R
F E E D L O T N I E T O R P L

W

Weaning (wean) - Separating young animals from their dams so the offspring can no longer suckle.

Wholesale (primal) cut - Refers to a part of the animal where meat comes from. The chuck, rib, loin and round are wholesale cuts for beef cattle.

Y

Yearling weight - Weight at 365 days.

U

Udder - Encased group of mammary glands of the female.

V

Variety meats - Liver, brain, heart, kidney

Veal - Meat from calves (under 3 months of age). Veal typically comes from dairy bull calves.

T

Tattoo - Numbers and/or letters that are formed by puncturing and rubbing ink into the skin in the ear or ears. Tattoos permanently identify the animals and sometimes indicate year of birth.

Traits - Characteristics of an animal that people use to evaluate.

Twist - Point between hind legs where thighs come together. Often an indicator sight for fat deposits.

The following are examples of resources to help you complete the activities and learn more about this exciting project. The Extension Service does not endorse any non-extension resources.

Beef Project Resources

- **4-H National Juried Beef Publications**
National 4-H Curriculum
Beef Publications
- **Beef 1 Bite Into Beef**
BU-08143
- **Beef 2 Here's the Beef**
BU-08144
- **Beef 3 Leading the Charge**
BU-08145
- **Beef Helper's Guide**
BU-08146
- **Beef Pattern**
BU-07332

Kansas 4-H Beef Curriculum
Notebook Kansas Cooperative Extension Service - 4-H
201 Umberger Hall
Manhattan, KS 66506-3404

Beef Magazines

Beef Today
Farm Journal, Inc.
230 W. Washington Square
Philadelphia, PA 19160

Drivers Journal
Circulation Dept.
P.O. Box 1417
Lincolnshire, IL 60069

Breed Associations

American Angus Association
3201 Frederick Blvd.
St. Joseph, MO 64506

American Brahman Breeders Association
1313 La Concha Lane
Houston, TX 77054

International Brangus Breeders Association
P.O. Box 696020
San Antonio, TX 78269-6020

Braunvieh Association of America
P.O. Box 6396
Lincoln, NE 68506-0396

American-International Charolais Association
P.O. Box 20247
Kansas City, MO 64195

American Chianina Association
P.O. Box 890
Platte City, MO 64079

American Gelbvieh Association
10900 Dover St.
Broomfield, CO 80021

The American Hereford Association
1501 Wyandotte Street
P.O. Box 014059
Kansas City, MO 64101

American Highland Cattle Association
200 Livestock Exchange Building
4701 Marlon
Denver, CO 80216

North American Limousin Association
7383 South Alton Way
P.O. Box 4467
Englewood, CO 80155

Texas Longhorn Breeders Association of America
Box 4430
Fort Worth, TX 76164

American Maine-Anjou Association
528 Livestock Exchange Building
Kansas City, MO 64102

American Polled Hereford Association
11020 NW Ambassador Drive
Kansas City, MO 64153

Red Angus Association of America
4201 N. Interstate 35
Denton, TX 76207-3415

American Sellers Association
19590 E. Main Street #202
Parker, CO 80138

American Shorthorn Association
8288 Hascall Street
Omaha, NE 68124

American Simmental Association
One Simmental Way
Bozeman, MT 59718

North American South Devon Association
19590 E. Main Street #202
Parker, CO 80138

American Tarentaise Association
P.O. Box 34705
Kansas City, MO 64116

Handbooks

National Beef Cattle Handbook

Organizations

National Cattlemen's Beef Association

9110 E. Nichols Avenue Ste. 300
Centennial, CO 80112

R-CALF United Stockgrowers of America
P.O. Box 30715
Billings, MT 59107

State Cattlemen's Associations

State Beef Councils & Commissions

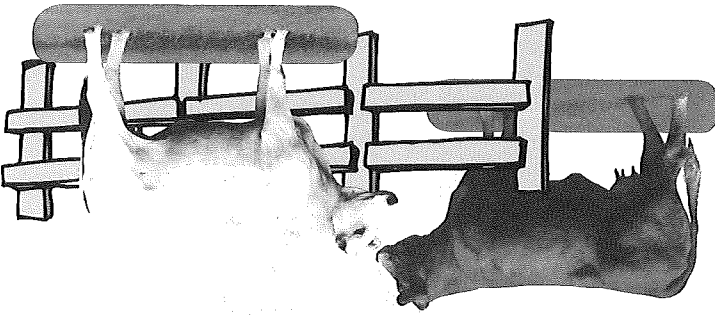
Web Sites

Beef Magazine web sites

Beef Breed Association web sites

National Cattlemen's Beef Association web site

General Beef Management



Find more about Beef
and other projects online at:

**Science, Engineering
and Technology**

- Agricultural Science
- Afterschool Agriculture
- Animal Science**
- Beef
- Cat
- Dairy Cattle
- Dairy Goat
- Dog
- Embryology
- Entomology
- Exploring Farm Animals
- Meat Goat
- Pets
- Poultry
- Rabbit
- Sheep
- Swine
- Veterinary Science
- Horse
- Engineering and Technology**
- Aerospace Adventures
- Electric Excitement
- Computer
- Exploring 4-H Robotics
- Geospatial
- Sewing Expressions
- Small Engines
- Woodworking Wonders
- Environmental Science**
- Exploring Your Environment
- Forestry—Forests of Fun
- Fishing for Adventure
- Outdoor Adventures
- Plant Science**
- Down-to-Earth—Gardening in the Classroom
- Gardening
- Science Discovery**
- Science Discovery Series

Healthy Living

- Health and Fitness**
- Bicycle Adventures
- Child Development—Kids on the Grow
- Keeping Fit and Healthy
- Nutrition**
- Foods
- Microwave Magic
- Citizenship**

Communication and Expressive Arts

- A Palette of Fun
- Communications—Express Yourself!
- Photography
- Que Ricol Latino Cultural Arts
- Theatre Arts
- Visual Arts
- Community Action**
- Citizenship—Public Adventures
- Service Learning
- Leadership**
- Exploring 4-H
- Step Up To Leadership
- Personal Development**
- Consumer Savvy
- Financial Champions
- Workforce Preparation**
- Be the E—Entrepreneurship
- Get in the Act!

Resources

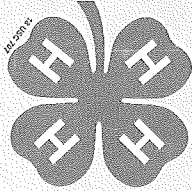
- Experiential Learning Video

Discover over 180 National 4-H Curriculum titles in mission areas of Science, Engineering, and Technology; Healthy Living; and Citizenship. Youth activity guides are filled with fun, engaging experiences that cultivate abilities youth need for everyday living as they progressively gain knowledge about subjects that interest them. All titles have been reviewed and recommended by the National 4-H Curriculum Jury Review process, signifying their excellence in providing hands-on learning experiences for youth.



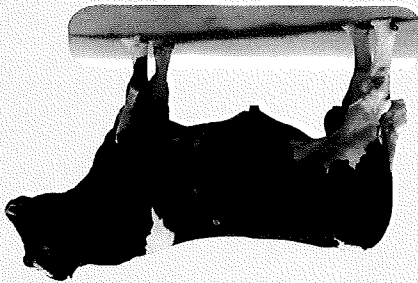
www.4-hcurriculum.org

Explore more curriculum
projects online at:

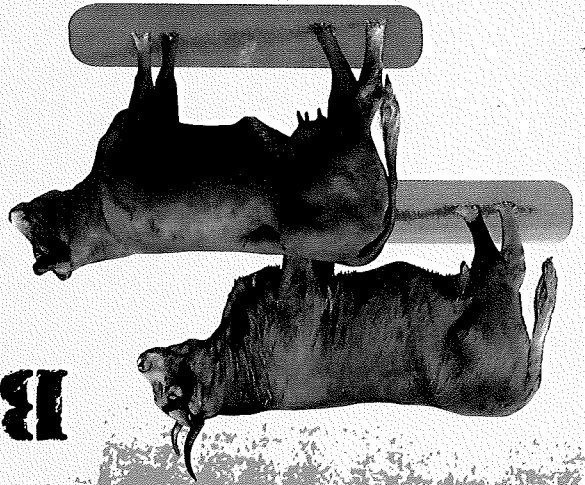


I pledge
my Head to clearer thinking,
my Heart to greater loyalty,
my Hands to larger service, and
my Health to better living,
for my club, my community,
my country, and my world.

THE 4-H PLEDGE



BITTE INTO BEEF



BEEF I