

Placer County 4-H



Cattle/Beef Project Leaders' Guide

Goat lessons developed by University of Minnesota, 4-H Animal Science Project Meeting, MI.

Sheep lessons developed by North Central Region of the University of California Extension

Cattle lessons developed by National 4-H Cooperative Curriculum System.

Swine lesson developed by National 4-H Cooperative Curriculum System.

Horse lesson developed by National 4-H Cooperative Curriculum System.



University of California Cooperative Extension
Division of Agriculture and Natural Resources



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Characteristics & Implications...for Youth Ages 9 to 11

CHARACTERISTICS	
<ul style="list-style-type: none"> Very active with boundless energy Extremely curious--constantly asks "why?" Enjoy hands-on activities Use concrete thinking Likes group activity Like to be with members of own sex Admire and imitate older boys and girls Usually do best when work is laid out in small pieces Do not like keeping records-do not see value in them Like symbols and regalia 	<ul style="list-style-type: none"> Easily motivated-eager to try new things Use concrete thinking Learn to locate resources Like to explore ideas Learn about self through relationships Has rapidly changing interests Guidance from parents and other adults important if youth are to stay on task and achieve optimum performance Find difficulty in delaying immediate pleasure for future goals Need recognition and praise for doing good work
IMPLICATIONS FOR PROJECT LEADER	
<ul style="list-style-type: none"> Use detailed outlines of sequential learning experiences Build in activities where youth exchange resources for personal or group goals Incorporate many brief learning experiences Encourage learning experiences be done with youth of the same sex – if to be done with the opposite sex, avoid competitions between girls and boys Keep written work simple – review forms and worksheets with the group step-by-step Clarify and enforce reasonable limits for this group – provide the safety net of an adult who will maintain boundaries Involve older teens in helping youth in this group plan and carry out activities together Be present for this group – visible and accessible but in the background 	<ul style="list-style-type: none"> Use hands-on learn-by-doing activities Allow groups to develop parts of a larger plan Use activities where youth need to locate resources Plan activities that allow youth to move about and use their bodies – but vary activities for many interests (not just sports) Emphasize group learning experiences Use activities where youth achieve and produce a product Give clear instructions with set deadlines Do NOT play favorites – treat ALL youth fairly Encourage group free time Make recognition available to those who earn it – let youth know they will receive rewards for completing activities, and present recognition in front of peers and parents
SHARE	
<ul style="list-style-type: none"> Have youth share what interests, talents, abilities, and skills they developed in the activities Ask youth how teamwork, cooperation, friendship, and sportsmanship played out in activities completed Plan group time to talk about beliefs and values as related to activities completed Ask group members to share options considered in the activities 	<ul style="list-style-type: none"> Ask youth to share personal or group adjustments made during the activities Ask youth to verbalize or demonstrate opposing points of view they observed in the activities Ask youth to share opinions about activities completed – personal and group member performance, results of group work, etc. Ask youth to identify stressors and dangerous situations encountered in the activities completed

Characteristics & Implications...for Children Ages 9 to 11

Continued

PROCESS	
<ul style="list-style-type: none"> • Ask youth what questions they still have about the activities just completed – encourage them to find some of the answers on their own, or encourage a few youth to find the answers and report back to the group • Help youth identify successes achieved in the activities – give positive feedback to the efforts and successes you see • Avoid generalized praise – this group sees through it and feels manipulated 	<ul style="list-style-type: none"> • Ask youth to demonstrate sequenced steps completed in the activities • If tools were used in the activities, ask youth how they shared the use of them in their groups • Have youth explain rationale for choosing some options over other ones in the completed activities • Provide correction quietly – one on one – in a caring and consistent manner
GENERALIZE	
<ul style="list-style-type: none"> • Have youth generate alternative solutions to problems solved in the activities – or speculate other problems that could be solved in similar ways • Ask youth to describe how the relationships that were formed or strengthened in the activities could be used in the future 	<ul style="list-style-type: none"> • Ask youth what general categories were formed or needed to complete the necessary activities • Provide active experiences that generally relate to or reinforce activity content presented such as nature walks, ropes courses, trips to significant sites, etc.
APPLY	
<ul style="list-style-type: none"> • Based on the content of activities completed, help youth form groups or clubs with common “collecting” interests or hobbies – ball cards, stamps, bugs, rocks, buttons, etc. • Build in ways parents, teachers, and other adults can help youth complete follow-up additional activities • Encourage youth to incorporate technology into follow-up related activities • Build in community service roles to reinforce content taught – help this group work on environmental issues in their community 	<ul style="list-style-type: none"> • Give related assignments for youth to manage and complete • Encourage apprenticing with teen volunteers in related activities • Provide opportunities for parental involvement such as homework or “things to do” lists – solicit the help of parents to assist youth with written work • Provide opportunities to set two or three goals for a six-month period • Work with youth to identify and study related careers

Characteristics & Implications...for Youth Ages 12 to 14

CHARACTERISTICS	
<ul style="list-style-type: none"> • Ready for in-depth, longer learning experiences • Self-conscious – many need help overcoming inferiority complexes • Interested in activities involving boys and girls together • Like fan clubs – many have adult idols • Often unclear of needs and values • Want to explore outside their own community 	<ul style="list-style-type: none"> • Concerned about physical development – sometimes practice excessive grooming behaviors • Want to be liked by friends • Interested in sports and active games • Getting over the age of fantasy – beginning to think of what they will do when they grow up • Desire independence – but want and need their parents’ help
EXPERIENCE	
<ul style="list-style-type: none"> • Concentrate on developing individual skills – help youth compare skills to their own standards • Encourage active and fun learning experiences such as canoeing, hiking, and environmental stewardship – but not weighted toward physical prowess • Provide hands-on and skill-centered experiences in specific subject matter, and allow for quiet time • During activities, ask questions to encourage predicting and problem solving such as “What if this doesn’t work? What could then happen?” • Encourage working with older teens and adults to complete learning experiences and apprenticing • Encourage deeper exploration of leadership roles – provide opportunities to practice leadership roles with coaching, and encourage keeping more detailed records of leadership experiences • Involve the group in setting rules for the group or for the program • Do NOT use put-downs or “in-the-face” behaviors with this group • Provide learning experiences outside of the community 	<ul style="list-style-type: none"> • Encourage learning experiences related to understanding self and getting along with others • Encourage learning experiences involving boys and girls – provide activities to be with the opposite sex in healthy ways such as planning groups, parties, fund-raising activities, etc. • Give youth a chance to choose when and if they are “on stage” • Tasks can be more difficult and of longer duration – making a model, keeping a journal, etc. – allow for creativity! • Help youth find necessary information and support activities • Teen and adult leaders must be well-liked to be effective – teen leaders should be three or four years older than the youth and considerably more mature • Encourage involvement in teen councils and planning boards • Provide realistic parameters – explain why they are necessary • Avoid singling youth out in front of others either to commend or to criticize
SHARE	
<ul style="list-style-type: none"> • Ask youth to reflect on what they learned in the activities • Have youth prepare and give presentations on what they gained from or thought of the activities completed • Based on observations of the activities completed, ask youth to state what they think would be appropriate symbol for the group 	<ul style="list-style-type: none"> • Ask youth to share any emotions they observed in the group and to share feelings about any relational interferences they encountered during the activities • Ask youth to share how their personal values interfaced with the decisions of the group • Ask youth to define their leadership style based on their performance in the activities completed

Characteristics & Implications...for Youth Ages 12 to 14

Continued

PROCESS	
<ul style="list-style-type: none"> Ask youth to explain the plan of action undertaken to complete the activities – or the steps involved in creating the resulting product Ask youth to share observations they made of how different group members went through the same experiences Have youth list and examine varying points of view surfaced in the activities Have youth describe ethical dilemmas they observed in the activities and how they were resolved Pose abstract questions to help youth process realizations made during activities, and present similar scenarios, and ask youth to predict results 	<ul style="list-style-type: none"> When activities result in a product, ask youth what could have been done to improve the product Have youth articulate or demonstrate in a creative way how they benefit from their association with the group Provide opportunities for youth to ask and question ways of doing things in the group Find time to talk with them individually to help them work through problems or to discuss personal issues Provide honest information for the sexual issues and questions they have – listen to their fears and worries about their sexual development without judging or trivializing
GENERALIZE	
<ul style="list-style-type: none"> Present multiple alternatives in related situations, and ask youth to compare and choose the best possible option Assist youth in identifying ways they can practice assertiveness around the results of the activities completed Ask youth to share, in detail, skills and education needed for related jobs 	<ul style="list-style-type: none"> As a result of the activities, ask youth to set long-term goals and to plan strategies for reaching those goals Ask youth to explain actions or decisions that took place in the activities related to healthy or safe living Ask youth to construct simple budgets to reach stated goals
APPLY	
<ul style="list-style-type: none"> Have youth keep a journal of personal decisions and changes they make related to the activities experienced Encourage technological application to key concepts presented Relate activities completed to career choices 	<ul style="list-style-type: none"> Help youth identify and perform personal and group community contributions that meet special needs within their community Relate activities completed to career choices Have youth shadow experienced workers in related fields
CHARACTERISTICS	
<ul style="list-style-type: none"> Social needs and desires are high Interested in co-educational activities Want adult leadership roles Beginning to think about leaving home for college, employment, marriage, or other relationships 	<ul style="list-style-type: none"> Often need guidance in selecting careers Developing community consciousness Want/need a strong voice in planning programs Have interest areas that are more consistent with earlier ones – patterns of interest are emerging

Characteristics & Implications...for Youth Ages 15 to 19

EXPERIENCE	
<ul style="list-style-type: none"> • Concentrate on developing individual skills – help Provide opportunities for self-expression – emphasize leadership life skills related to social development • Provide activities to test out interactions with the opposite sex such as trips, dances, work groups, etc. • Plan some group time where youth can discuss ideas and abstract concepts such as current political issues, world peace, virtual reality, etc. • Plan activities where youth can experiment with different roles • Involve youth in more direct developmental activities such as tutoring, helping coach, leading groups, speaking to community groups, mentoring younger children, etc. activities that place them “in front” of others • Support youth as they set, work to reach, and evaluate long-term goals 	<ul style="list-style-type: none"> • Provide some experiences around body image, etiquette, grooming, hair styles, health and fitness, etc. – avoid comments that criticize or compare stature, size, or shape! • Provide opportunities for youth to talk about their own beliefs • Involve youth in carrying out plans – they are ready to be creative at a level of action, and they are at a level of responsibility to do this • Encourage greater in-depth study of leadership roles and life skills • Encourage youth to plan programs (even social activities) with guidance and support from involving adults • Encourage working with adult role models – emphasize guidance and counsel from adults rather than controlling direction • Be willing to admit mistakes as an adult!
SHARE	
<ul style="list-style-type: none"> • Ask youth what new information they learned in the activities • Ask youth to share personal strengths accessed in the activities • Ask youth to share what constraints they encountered in the educational activities • Ask youth to share personal and group risks associated with the activities completed • Ask youth to detail personal and group records kept in the activities completed 	<ul style="list-style-type: none"> • Challenge youth to interpret and creatively communicate what was learned through symbols, pictures, graphs, etc. • Ask youth to share how they prioritized roles and functions in completed activities • Ask youth to share emotions and feelings witnessed in the activities • Ask youth to summarize how the group made decisions together throughout the activities
PROCESS	
<ul style="list-style-type: none"> • Ask youth how the activities could have been structured differently to more efficiently accomplish the same educational goals • Ask youth to detail resources needed (available and missing) to complete activities just finished • Ask youth to generate and evaluate additional alternatives to activities completed • Ask youth to describe underlying rules or principles at play in the activities completed and how they influenced the results 	<ul style="list-style-type: none"> • Ask youth to describe or demonstrate how they compensated for unexpected challenges and changes in the activities • Ask youth to list adjustments made in behavior and plans while completing the activities • Ask youth to share personal value criteria they used in the activities completed – if in a trusting relationship, ask them to compare what they did to what they SHOULD have done in certain situations

Characteristics & Implications...for Youth Ages 15 to 19

Continued

GENERALIZE	
<ul style="list-style-type: none"> • Ask youth to identify related instances where they need to convey personal opinions and ideas to persuade or convince others • Ask youth to identify skills used in their group that are also needed in the workplace • Encourage application of leadership life skills to living on their own – incorporate budgeting and money management applications in activities • Assist youth in making related wise, healthy, and safe lifestyle choices 	<ul style="list-style-type: none"> • Ask youth to speculate long-term consequences of results of the activities completed • Challenge youth to find answers to similar problems • Ask youth how they contribute to the well being of their families in similar ways to their participation in this group • Construct experiences that expose youth to and involve with the larger society
APPLY	
<ul style="list-style-type: none"> • Support youth as they design follow-up related independent learning experiences • Assist youth in applying leadership life skills to career exploration – especially decision making • Offer Career or College Days – including the wide spectrum of options (not just white collar positions) • Encourage career exploration within specific subject matter – offer vocational activities • Provide activities (actual and theoretical) to explore the job market 	<ul style="list-style-type: none"> • Ask youth to develop plans for future life transitions • Arrange or locate internships (paid or unpaid) based on skill-specific career interests • Provide guidance and support to youth as they work to meet actual and real community needs • Encourage learning activities involving the community such as service groups, political parties, Habitat for Humanity, ecology, Adopt a Highway, etc. – involve them as spokespersons for the activities • Organize experiences for youth outside of their own community

CATTLE PROJECT GUIDE

First Meeting:

- Project leader discusses their background and interest in being a leader for this project.
 - Does not require an animal to be in the group.
 - Typically, youth who want to stay end up getting an animal, and those who do not purchase an animal end up leaving the group or wanting the educational information.
 - Hand out a sheet of meeting times and dates at the first meeting. Project begins in October, does not meet in December, and ends in May.
- Ask your youth questions about their background and interest with beef. This will allow for the project leader to tailor the program to the youth.
 - Make sure to discuss about market versus breeding animal options, and find the interest in each category from the youth in the project.
 - Create a game or fun activity to quiz youth on their existing knowledge of Beef. Could be a Beef Jeopardy or fill-in the blank for Beef Parts.
 - Usually have an all breeds poster visible.

http://oklahoma4h.okstate.edu/litol/file/animal/beef/N-349_web.pdf

Facilities and Equipment

- **Shelter:** A simple 8 by 8 foot, three-sided lean-to is adequate for one animal, but allow more space for each additional animal.
 - **Feeding:** Allow 2.5 to 3 feet of trough space per head. You need a trough that's about 6 to 8 inches deep, 15 to 18 inches wide, and with the edge about 20 inches above the ground. Plan for drainage and be prepared to deal with odors, flies, noise, and other environmental factors.
- **Water:** An animal needs 10 to 15 gallons of clean water a day.
 - **Fitting and Showing:** Supplies- rope halter, leather show halter, tie rope, neck chain if desired for use when washing, scotch comb, rice root brush, mild soap, coat dressing, and clippers (some supplies are optional or may be borrowed).

<http://www.slideshare.net/texas4h/4-h-show-cattle-facilities>

Feeding

- Usually there will be a combination of pasturing and grain/hay feeding cycles. Animals are usually attained in the late fall and early winter and pastured with some grain/hay supplementation early on. Then pastured up through May/June with transition onto feed, being a combination of grain and hay. They will then have feed until fair in early September.
- Calves usually eat 2 to 3 pounds of feed for each 100 pounds of live weight.
 - It takes approximately 10 pounds of feed to produce 1 pound of gain.
 - Feed on a regular schedule and be aware of problems such as bloat, scours, and impaction.

Health

- Provide your animal with clean pens and equipment, fresh water, and a correctly fed and balanced ration. Also control external and internal parasites and protect against disease. Check your animal's breathing.
- If an animal appears to be sick, work with leader/parent to check temperature, observe stool, check for scratching or rubbing. Remember to treat for grubs and flies.

References:

- <http://www.nda.agric.za/docs/Infopaks/commonDiseases.htm>
- http://www.tractorsupply.com/know-how_Cattle-Care-101_common-diseases-in-cattle
- <http://www.thecattlesite.com/diseaseinfo/>

CATTLE PROJECT GUIDE (Continued)

Fitting and Showing

- Become friends with your animal. Gentle it down. Put a rope halter on it. When the animal becomes familiar with the halter, begin to teach it be led and tied. Tie the animal to a post that is chin height with enough slack in the rope so the animal can stand or lie down. Use a slip knot that you can untie easily.
- Practice leading your animal to water each day. Walk on the left side of the calf, holding the lead strap in your right hand. Once you can lead the calf without problems, practice setting it up, using a show stick. When walking, carry the show stick and lead strap; then set up the animal.
- Remove foreign matter from the hair coat by brushing downward with a rice root brush. Then brush upward with the same brush and scotch comb. Brush the calf twice a day for at least 10 minutes at a time.
- Wash the animal once a month. Use a mild soap and rinse the animal thoroughly. About 5 to 6 weeks before showing, start giving baths once a week. Talk with your leader about clipping the animal since there are clipping preferences for each breed.

References:

<http://www.weaverleather.com/Documents/Daily%20Care.pdf>

<http://www.weaverleather.com/Documents/Clipping.pdf>

<http://www.weaverleather.com/Documents/Fitting.pdf>

Marketing

- As a beef member and as a consumer, you'll want to learn about carcass evaluation, dressing percentage, cut-ability, and the prices for wholesale and retail cuts of meat.
- The ideal beef carcass has a high yield and high-quality muscle and a minimum of waste. Carcass evaluation is determined by the following factors: conformation (even balance between front and rear quarters), finish (external, internal extra-muscular, and intramuscular), quality (marbling, color, texture, and firmness of lean). There are eight grades for slaughter animals: Prime, Choice, Good, Standard, Commercial, Utility, Cutter, and Canner.

Written Guides/Information Sheets

<http://animalscience.tamu.edu/files/2012/04/beef-managing-beef-cattle.pdf>

<http://www.ansci.cornell.edu/extension/beef/beefu1.pdf>

<http://www.midrivers.com/~fergusco1/4H/Livestock/mt4h5264marketbeef.pdf>

Videos

https://www.youtube.com/watch?v=SCyJ0mKCiUU&list=PLY-aHHxCwggQwU9WfhDNlvKvHH3_uGbFW

https://www.youtube.com/watch?v=5f51j5CWUn4&list=PLY-aHHxCwggQwU9WfhDNlvKvHH3_uGbFW

Keeping Track: Annual Project Report

This section is used by the 4-H member to document their specific project work. Please remember to complete an Annual Project Report form for every project a member completes.

Copies of the Annual Project Report Form are available online at <http://ucanr.edu/sites/placercounty4h/files/167230.pdf> and within the 4-H Office.

Members are required to chart their progress in their Annual Report.

As a project leader, please help your youth fill in their Annual Project Report. Project Leaders may have surplus forms at each project meeting and allow youth members to fill in the form the last five to ten minutes of each project meeting. Or Project Leaders may want to send out summary descriptions for project meetings via email or Facebook.

Please remember to have youth chart their progress as they go.

Record Books may be done online with the Online Record Book or a paper copy. Please see the links below for additional information and resources.

Record Book Manual with Instructions

<http://4h.ucanr.edu/files/165564.pdf>

Placer County 4-H Record Book Resources

[http://ucanr.org/sites/placercounty4h/Community_Clubs/Resources - Forms/Record_Books/](http://ucanr.org/sites/placercounty4h/Community_Clubs/Resources_-_Forms/Record_Books/)

Online Record Book Resources

<http://4h.ucanr.edu/Resources/Members/RecordBook/RBResources/>

<http://4h.ucanr.edu/files/121045.pdf>

If you have any questions about the Record Book, please feel free to contact:

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jctrumble@ucanr.edu

530 889-7393



Cattle Project

Lesson 1: Selecting and Judging Dairy Breeds

Time:

60 minutes

Materials:

- ✧ Pen or pencil and paper
- ✧ Images or chart of different dairy breeds
- ✧ Match the Breeds Worksheet

Objectives:

- ✧ Recognizing the differences in dairy cattle breeds
- ✧ Assisting youth in deciding what type of dairy breed they may want to raise

Directions:

1. Pass out the Match the Breeds worksheet and allow youth members to work together. This is just an introduction and should not be stressful for youth or the leader. Allow as much or as little time as needed.
2. Come back together as a group and go over the worksheet. Allow youth to share what they think the answer is before sharing the correct answer and background information on each dairy breed.
3. After going over all the dairy breeds, have youth work in partners or groups and answer the following questions:
 - ✧ What breed did you know the least about?
 - ✧ What did you learn about this breed?
 - ✧ What breed do you like best? Why?

Developed by:

University of Minnesota,
4-H Animal Science
Project Meeting

Adapted by:

University of California
Cooperative Extension
Placer/Nevada

Cattle Project

Match the Breeds Activity:

A: _____

B: _____

C: _____

D: _____

E: _____

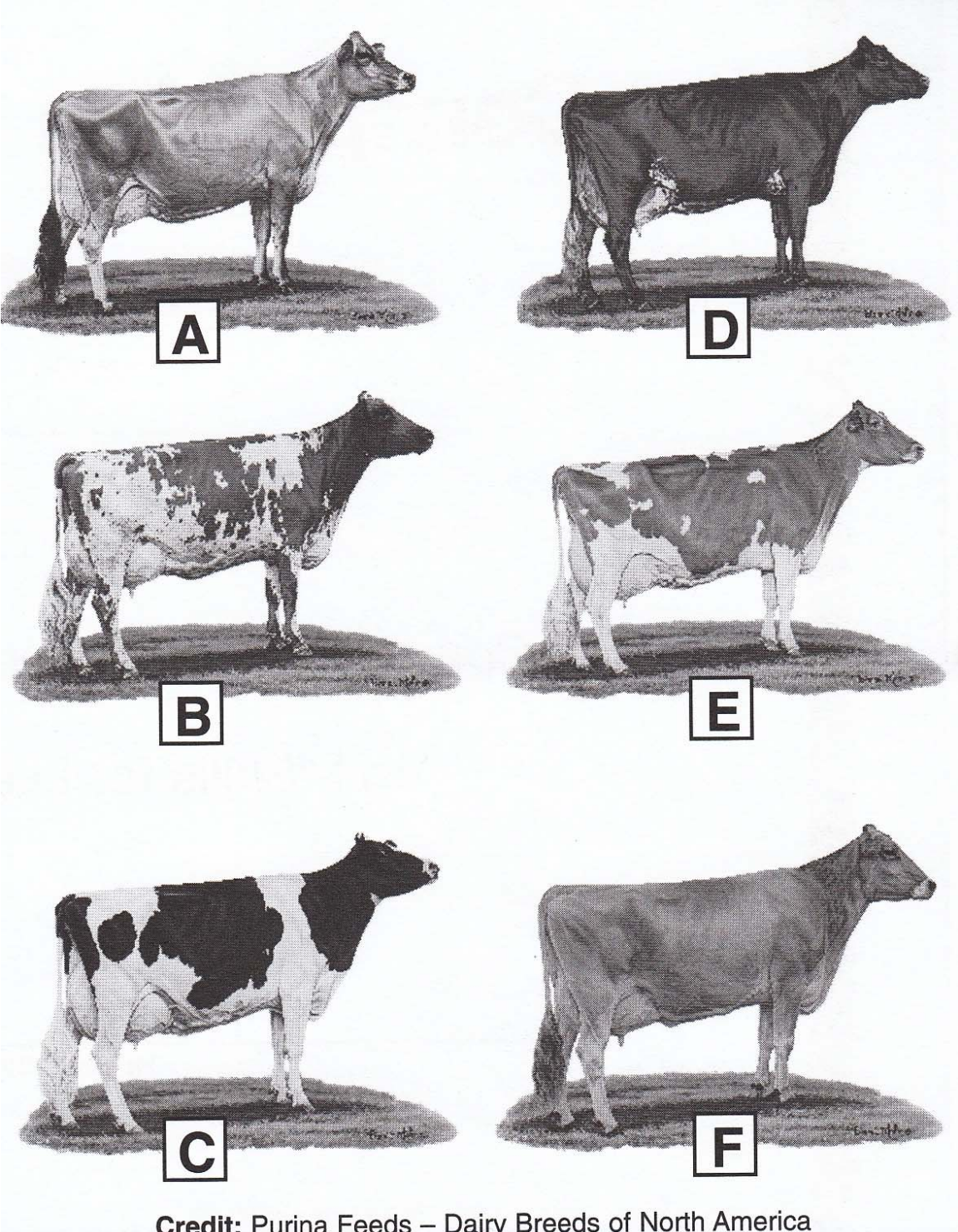
F: _____

Dairy Breed Summary

Breed	Mature Weigh (lb.)	Avg. Lb. Milk (305 days)	Avg. Lb. Fat (305 days)	Avg. % Fat Test	Avg. % Protein Test	Country of Origin
Ayrshire						
Brown Swiss						
Guernsey						
Holstein						
Jersey						
Milking Shorthorn						

Cattle Project

Match the Breeds:



Credit: Purina Feeds – Dairy Breeds of North America

Cattle Project

Leaders Notes

Ayrshire: Strong, rugged cattle that are known to be efficient grazers. They excel in udder conformation and are not subject to excessive foot and leg problems.

- ✧ *Color-* light to deep cherry red, mahogany, brown or a combination of any of these colors with white, or white alone.
- ✧ *Size-* a mature milking cow should weigh at least 1200 pounds.

Brown Swiss: The oldest of the pure dairy breeds of cattle. They are known for size and ruggedness with quality.

- ✧ *Color-* solid brown varying from very light to dark. Muzzle is black encircled by a mealy colored ring, and the tongue, switch and hooves are black.
- ✧ *Size-* a mature milking cow should weigh at least 1500 pounds.

Guernsey: Being of intermediate size, the Guernsey cow is known for producing high butterfat, high protein milk with a high concentration of beta-carotene. Other characteristics are their lack of any undesirable hidden genes and their adaptability to warmer climates.

- ✧ *Color-* a shade of fawn with white markings throughout, clearly defined. Skin should definitely show golden yellow pigmentation. A clear muzzle is favored over a smoky or black muzzle.
- ✧ *Size-* a mature milking cow should weigh at least 1200 pounds.

Holstein: The most popular breed of dairy cattle in the world. Over 95% of the dairy cattle in the United States are Holsteins. One of the largest breeds, and the highest in milk production of all dairy breeds.

- ✧ *Color-* black and white or red and white markings clearly defined.
- ✧ *Size-* a mature milking cow should weigh at least 1500 pounds.

Jersey: Smallest in body size of all dairy breeds, they mature quickly. The ideal cow shows sharpness with strength indicating productive efficiency. Jerseys are noted for the highest content of milk fat and protein in the milk of all dairy breeds.

- ✧ *Color-* a shade of fawn or cream with or without markings or an all black coat color is also accepted. Muzzle is black, and the tongue and switch may be either white or black.
- ✧ *Size-* a mature milking cow should weigh about 1000 pounds.

Milking Shorthorn: The milking shorthorn has made tremendous progress in milk production in the past 30 years. They are known for their excellent reproductive efficiency and long life.

- ✧ *Color-* red, red and white, or roan.
- ✧ *Size-* a mature milking cow should weigh at least 1250 pounds.



Cattle Project

Lesson 2: My Favorite Breed

Time:

60 minutes

Materials:

- ✧ Pen or pencil and paper
- ✧ Images or chart of different beef breeds
- ✧ Beef Breed Crossword

Objectives:

- ✧ Identifying major beef breeds
- ✧ Assisting youth in deciding what type of dairy breed they may want to raise

Directions:

1. Pass out the Beef Breed Crossword and allow youth members to work together. This is just an introduction and should not be stressful for youth or the leader. Allow as much or as little time as needed.
2. Come back together as a group and go over the crossword. Allow youth to share what they think the answer is before sharing the correct answer and additional background information on each beef breed. (Can turn going over answers into a game and give small prizes at the end.)
3. After going over all the beef breeds and any additional information that should be shared, have youth work in partners or groups and answer the following questions:
 - ✧ What beef breeds were new to you?
 - ✧ What characteristics are most important to you in deciding what breed you want to raise?

Developed by:

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Adapted by:

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Cattle Project

Beef Breeds Crossword:

Breed Word Bank

Angus	Beefmaster	Brahman
Brangus	Charolais	Chianina
Devon	Gelbvieh	Hereford
Limousin	Maine Anjou	Polled Hereford
Salers	Santa Gertudis	Pinzgauger
Shorthorn	Simmental	Scotch Highland

Across:

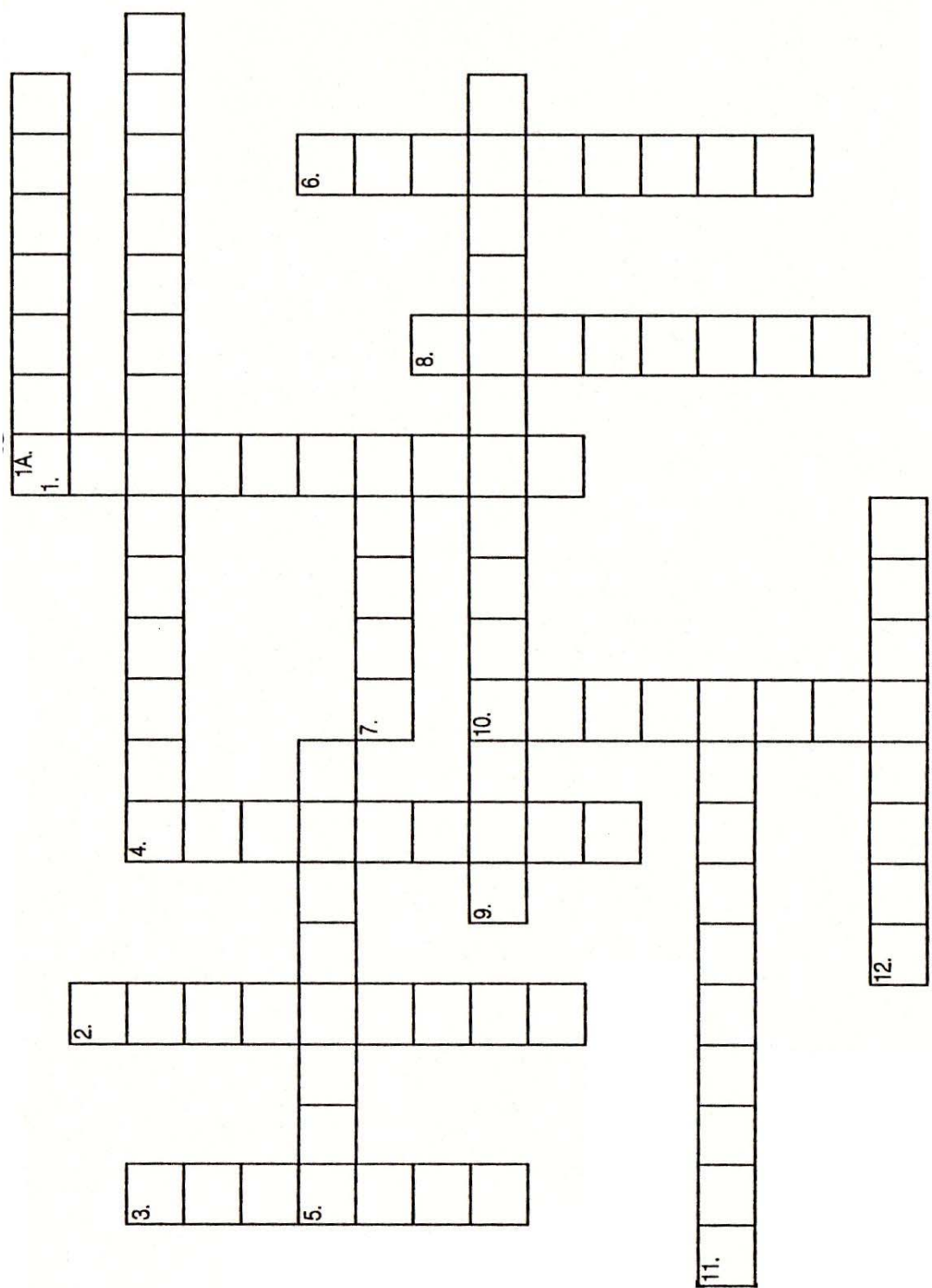
1. Developed in the US by crossing Brahman with Angus.
4. Red breed that originated in Texas on the King Ranch.
5. Red and White British breed popular for its superior foraging ability, vigor and hardiness.
7. Black polled breed that originated in Scotland and is known for its high quality marbled beef.
9. Warren Gammon, an Iowa cattleman developed this beef breed in the early 1990's.
11. Largest French breed of cattle developed by crossing English Shorthorn and French Marcelle cows.
12. Breed developed in Italy and among the largest beef breeds in the world for height and length of body.

Down:

- 1A. Combining Hereford, Shorthorn and Brahman breeds produced this American beef breed.
2. A large framed, dual purpose breed from the Simmen Valley in Switzerland.
3. Breed developed by combining several different breeds or strains of Zebu cattle of India
4. This English breed can be red, roan or white.
6. Large white breed first introduced in the US in 1936 and known for growth and muscle.
8. Yellow Alpine breed from Switzerland that ranges from reddish to yellow in color.
10. Red to gold breed developed in France and noted for muscle.

Cattle Project

Beef Breed Crossword:



Cattle Project

Leaders Notes

Breed Weights

Breed	Bull	Cow
Angus	1600-2000	1000-1400
Blonde d'Aquitaine	2500-3000	1600-1800
Chianina	3500-4000	2000-2400
Gelbvieh	2000-2900	1200-1400
Hereford	2000-2400	1100-1500
Charolais	2000-2500	1250-2000
Pinzgauer	2400-2700	1400-1600
Salers	2400-2600	1400-1600
Simmental	2300-2400	1600-1700
Limousin	2000-2200	1200-1400

Beef Breed Crossword Puzzle Answers:

- | | |
|-------------------|--------------------|
| 1. Brangus | 6. Charolais |
| 1A. Beefmaster | 7. Angus |
| 2. Simmental | 8. Gelbvieh |
| 3. Brahman | 9. Polled Hereford |
| 4. Santa Gertudis | 10. Limousin |
| 4. Shorthorn | 11. Maine Anjou |
| 5. Hereford | 12. Chianina |



Cattle Project

Lesson 3: Dairy Body Parts

Time:

60 minutes

Materials:

- ✧ Pen or pencil and paper
- ✧ Large chart of a dairy cow
- ✧ Labels of body parts
- ✧ Images of dairy cow or a live demonstration dairy cow

Developed by:

University of Minnesota,
4-H Animal Science
Project Meeting

Adapted by:

University of California
Cooperative Extension
Placer/Nevada

Objectives:

- ✧ Learning to identify 30 different body parts to a dairy cow

Directions:

1. Create a larger poster of a dairy cow and post on the wall with points that need to be labeled by youth. Give youth labels of the body parts and allow members to work together and post labels on the dairy cow poster. If there is a larger number of members, may need to create several posters.
2. Once youth have had the opportunity to label as many parts as they can come back together as a group. As a leader, go over the correct labeling of parts through the aid of a demonstration cow and/or images. Allow youth to take notes, ask questions, and examine the different parts on the live cow.
3. Once the previous activity is completed, have members work in pairs to answer the following:
 - ✧ What parts of the dairy cow were your able to identify?
 - ✧ With which parts of the dairy cow did you need assistance?

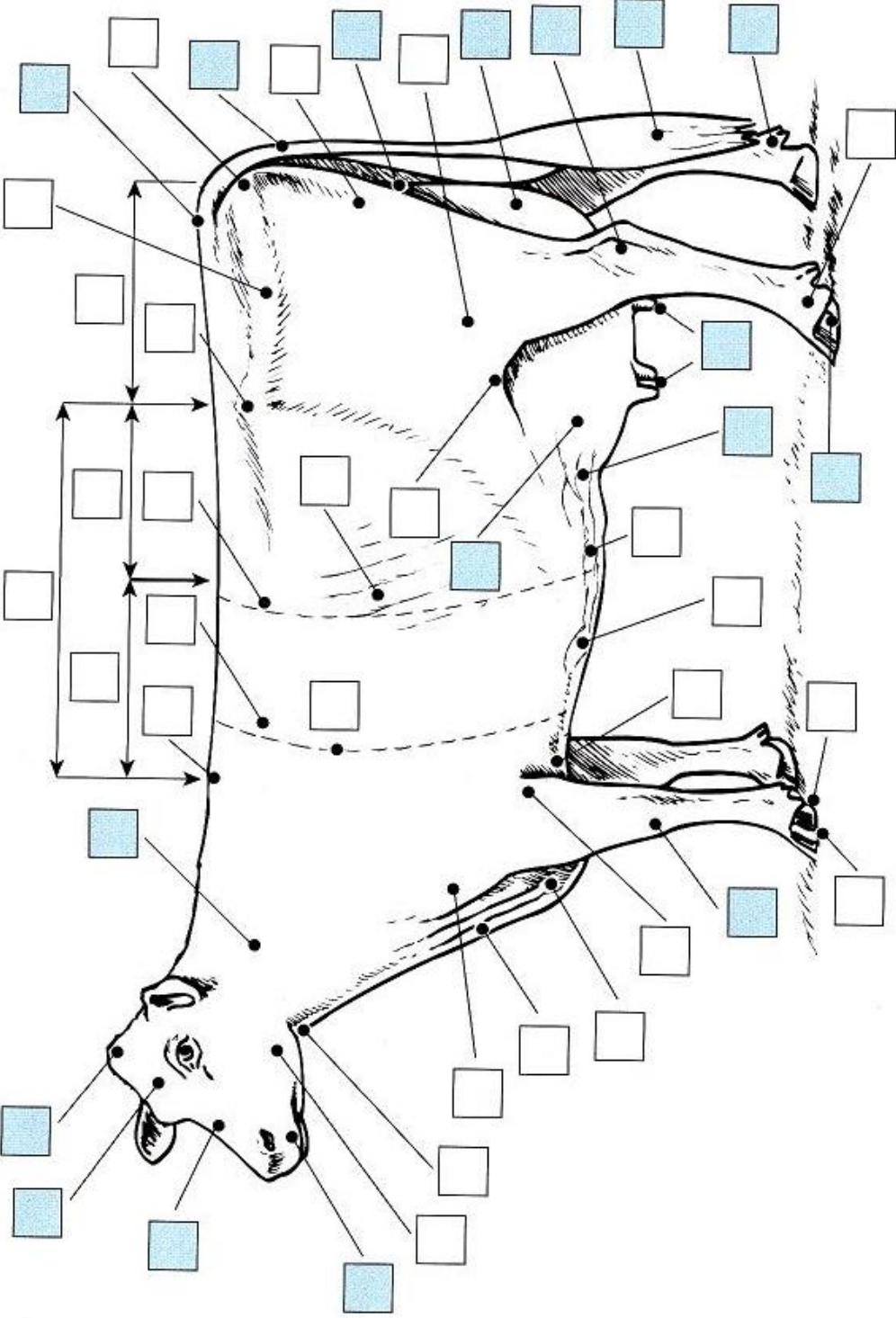
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Body Parts Word Bank:

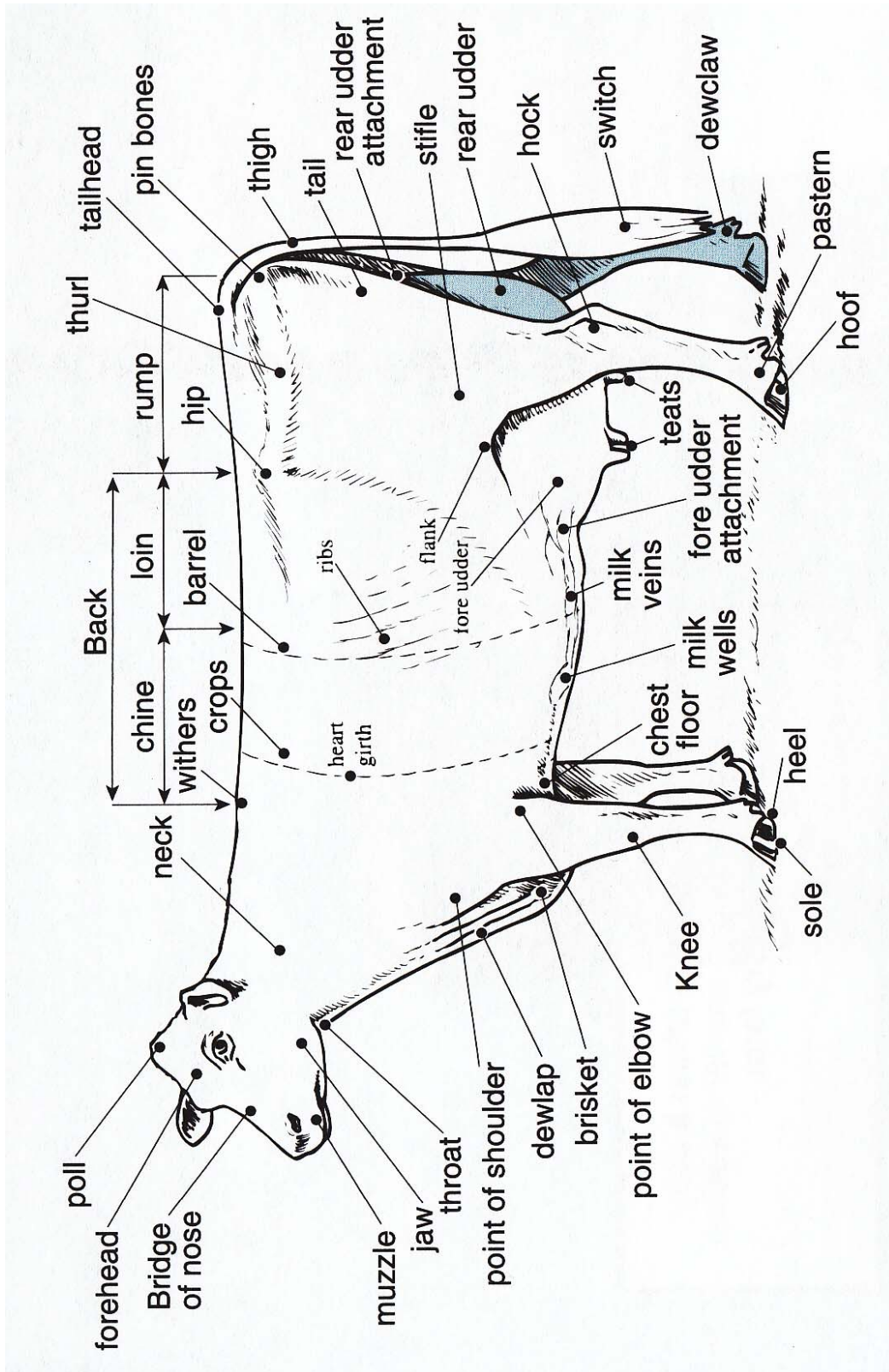
From the list below, place the correct part-number in the box pointing to that part in the picture on the next page. Start with the shaded boxes first.

- | | |
|---------------------------|---------------------------|
| 1. Poll | 2. Forehead |
| 3. Bridge of Nose | 4. Muzzle |
| 5. Jaw | 6. Throat |
| 7. Point of Shoulder | 8. Dewlap |
| 9. Brisket | 10. Point of Elbow |
| 11. Knee | 12. Sole |
| 13. Heel | 14. Chest Floor |
| 15. Milk Wells | 16. Milk Veins |
| 17. Fore Udder Attachment | 18. Teats |
| 19. Fore Udder | 20. Flank |
| 21. Hoof | 22. Pastern |
| 23. Dewclaw | 24. Switch |
| 25. Hock | 26. Rear Udder |
| 27. Stifle | 28. Rear Udder Attachment |
| 29. Thigh | 30. Tail |
| 31. Pin Bones | 32. Tailhead |
| 33. Thurl | 34. Rump |
| 35. Hip | 36. Ribs |
| 37. Barrel | 38. Loin |
| 39. Back | 40. Chine |
| 41. Crops | 42. Withers |
| 43. Heart Girth | 44. Neck |

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Lesson 4: Health of a Calf

Time:

60 minutes

Materials:

- ✧ Pen or pencil and paper
- ✧ Calf Health Chart
- ✧ Live demonstration dairy cow

Objectives:

- ✧ Recognizing a healthy calf vs. an unhealthy calf
- ✧ Learning how to examine the health of a calf

Directions:

1. As a leader, go over the examination chart and signs of a healthy vs. unhealthy calf.
2. If at all possible have a least one calf that youth members can actively observe and chart. If unable to have a live calf, supplement with photographs of healthy and unhealthy calves. (Also, if there is time, possibly allow youth to complete the examination and charting after the project meeting. Where they are able to find a calf to observe, and then come back together at the next meeting to discuss.)
3. Allow enough time for you to complete their examination and charting of the calf or images.
4. Then allow youth to get into groups and discuss the following:
 - ✧ What are the signs of a healthy calf?
 - ✧ What would you do if you saw signs of illness in a calf?
 - ✧ How would health problems change the calf's behavior?

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Calf Health Chart

Calf identification _____

Describe how the calf looks and acts:

Breed _____

Age _____ Sex _____ Weight _____

Weather temperature _____

Housing _____

General state of health:
 ___ Excellent ___ Good ___ Poor

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		

Calf Management	Yes	No	Comments
Horns removed			
Dewormed recently			
Free from flies and lice			
Vaccinated against disease			
Implanted and castrated (male)			
Water and feed available			

Cattle Project

Leaders Notes:

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

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Cattle Project

Lesson 5: Showing Your Best Side

Time:

60 minutes

Materials:

- ✧ Pen or pencil and paper
- ✧ Best Side Activity
- ✧ Live demonstration Calves

Objectives:

- ✧ Practicing judging and showmanship of a steer or heifer

Directions:

1. Have members work on the Best Side Activity. There are two examples of good and needs improvement showing. Members need to identify what four things are being done correctly and what four things that need to be improved. Then go over the activity together as a group.
2. Then have members get with a partner with their calves and practice showing their calf and judging their partner's showmanship as well. (This may not be possible at the project meeting, but adjust as needed. Youth may need to practice judging and showmanship at home. To help manage youth and animals make sure to have additional adult volunteers to assist.)
3. After everyone has had the opportunity to show and judge, come back together as a group and discuss the following:
 - ✧ How did you train your showmanship animal?
 - ✧ What did you do best as a showperson?
 - ✧ What do you need to improve as a showperson?

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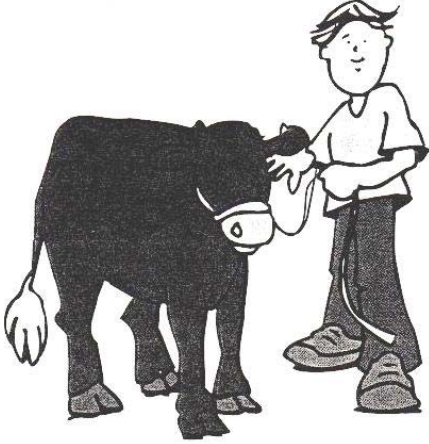
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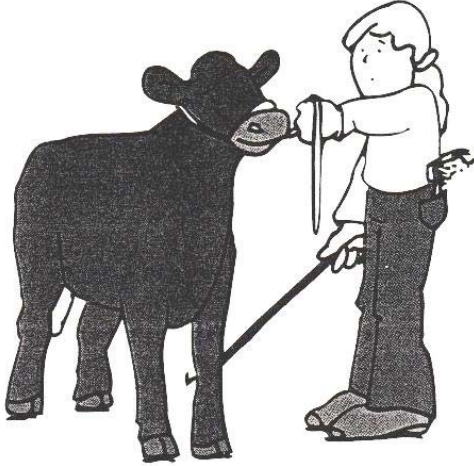
Showing Your Best Side:

One of these exhibitors is doing a great job, while the other could use some help! Find at least four things the one showperson could improve and at least four being done well by the other:



A black and white line drawing of a young boy with short hair, wearing a light-colored t-shirt and dark pants, standing next to a black cow. The boy is smiling and has his hands on the cow's head, appearing to be showing it. The cow is standing still and looking towards the boy.

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



A black and white line drawing of a young girl with long hair, wearing a light-colored t-shirt and dark pants, standing next to a black cow. The girl has a sad or frustrated expression and is pulling on the cow's lead rope. The cow is looking away from her.

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

Cattle Project

Leaders Notes:

Beef Showmanship Card	Points
Exhibitor's Appearance and Attitude	10
✧ Wear appropriate clothing, and boots or leather shoes	
✧ Be alert and show confidence	
Animal's Appearance	40
✧ Make sure hooves are properly trimmed, shaped, and clean	
✧ Clean, brush and comb the coat to emphasize the animal's strong point	
✧ Clip hair on head, brisket, underline and tail according to breed recommendation	
Showing Procedure	50
✧ When entering the ring walk forward in a clockwise direction on the left side of the animal	
✧ Place the lead strap in the right hand one foot from halter with extra length in left hand dangling but not touching the ground	
✧ When positioning or standing, face the calf, change lead strap to the left hand and set the animal's feet with show stick in right hand	
✧ Have the animal stand alert with its head up, top straight and legs square	
✧ Lead the animal in a clockwise direction when moving to a different position	

Cattle Project



Cattle Project

Lesson 6: Judging Dairy Cows

Time:

60 minutes

Materials:

- ✧ Pen or pencil and paper
- ✧ Activity Guide
- ✧ Live dairy cows or images

Objectives:

- ✧ Recognizing desirable traits of a dairy cow
- ✧ Learning how to judge dairy cow characteristics

Directions:

1. Have members work on the Describing Dairy Cows Worksheet. There are two examples of dairy cows with varying characteristics. Members should work together or alone, to make observations for the two images and describe each cow in the chart below. Once all members have completed the worksheet, come back together as a group and go over the activity.
2. Then have members get with a partner with their dairy cows and practice showing their cow and judging their partner's showmanship as well. (This may not be possible at the project meeting, but adjust as needed. Youth may need to practice judging and showmanship at home. To help manage youth and animals make sure to have additional adult volunteers to assist.)
3. After everyone has had the opportunity to show and judge, come back together as a group and discuss the following:
 - ✧ Which cow did you think was the better animal in Describing Dairy Cows Worksheet?
 - ✧ What information do you need to select a good animal?
 - ✧ How will knowing the ideal structures of a cow help you make better judging decisions?

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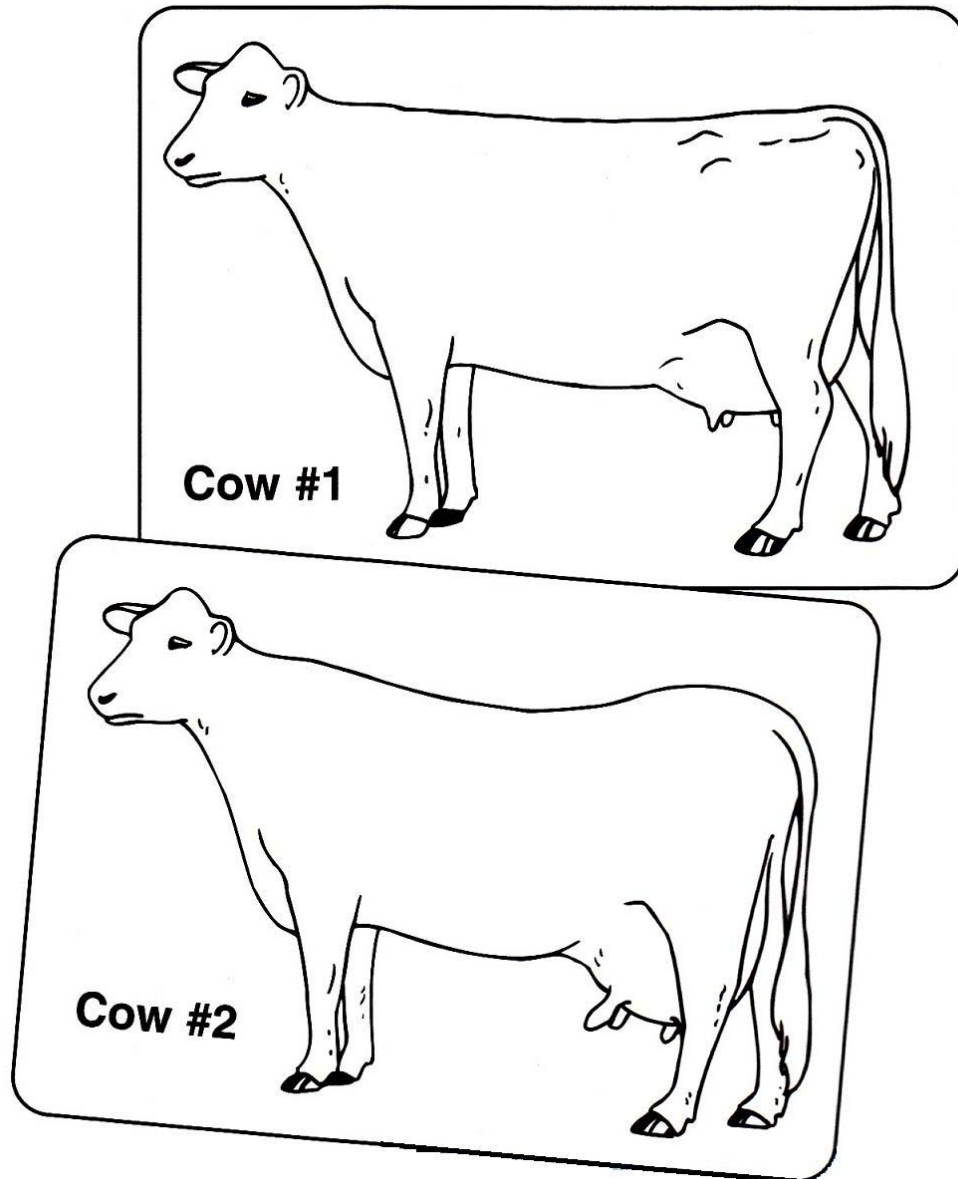
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Describing Dairy Cows Worksheet:

The primary reason for raising dairy cows is to produce milk. For dairy cows to be highly profitable, they must have traits that function properly. For example, a firmly attached udder that is held above the hocks, correct feet and legs, and width of chest and rump are all desirable traits (characteristics).



Test your decision making skills. Compare several structural traits of the two cows shown above and describe what you see on the next page. Then write a comparative term in the third column that tells why you would place one over the other.

Cattle Project

Structures	Cow # 1 Description	Cow #2 Description	Why I Placed #1 over #2 (Comparative Terms)
Depth of rib			
Fore udder attachment			
Pasterns	<i>Strong pastern, deep heel</i>	<i>Weak, shallow heel</i>	<i>Stronger Pasterns</i>
Rear leg placement			
Rear udder attachment			
Rump			
Teat length			
Teat placement			
Topline/loin			
Udder depth			
Udder floor			

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Leader's Notes:

