



ACTIVITY 7

Cattle Characteristics

RANCH LIFE SERIES / BOOK 1 / RANCHING AND LIVESTOCK

Chapter 6

Content Area

Science

Topic

Structure and Function, Adaptations

Objective

Students will observe unique traits for cattle breeds and apply inherited traits to the cattle business.

Texas Essential Knowledge and Skills (TEKS):

1.13A, 2.13B, 3.13A, 4.13AB, 5.13B



Cattle Characteristics

CONTENT AREA: Science

TOPIC: Structure & Function, Adaptations

GAME MATERIALS:

- SECURITY BRIEFING (page A7-2): 1 per student or student group
- CATTLE CHARACTERISTICS - QUICK REFERENCE CARDS #1-3 (pages A7-3 to A7-8): 1 set per student group
 - * *Note: Only the front side of the reference card will be used in Activity 7.*
You will only need to copy the back side of the reference cards IF your students will also be completing Activity 8.
- Large blank paper to make a poster
- Markers, crayons, colored pencils, pencil or pen
- THE BOTTOM LINE (page A7-10): 1 per student or student group

READING STRATEGY:

Students will read Chapter 6 (pages 29-43) before completing the activity below.

GAME INSTRUCTIONS:

1. Divide students into groups and give each a complete set of the CATTLE CHARACTERISTICS - QUICK REFERENCE CARDS.
2. Each group will assume the role of "rancher."
3. Using the REFERENCE CARDS, each group will need to determine which of their breeds has the characteristics they believe will sell best at auction. Students will do this by comparing and contrasting characteristics between different breeds. They will also need to consider the inherited traits that will be passed on to young calves when the newly acquired cattle reproduce with existing cattle on the ranch.
4. After a breed has been chosen, each group will make an easy-to-read poster advertising the benefits, adaptations, and inherited traits of their chosen cattle breed.
5. Students will use their poster as a visual aide as they attempt to "sell" their cattle breed to the class during their group's presentation to the class.

STUDENT SKILLS ASSESSMENT:

- Have students (or student groups) complete THE BOTTOM LINE worksheet at the end of the game.

Cattle Characteristics



SECURITY BRIEFING –

WORDS OF WISDOM FROM HANK THE COWDOG:

*Running a ranch is big business. There is a lot of information that Loper has to know about his cattle. There are many different breeds of cattle and each breed has **adaptations** that make it suitable for living in certain **climates**.*

*Our ranch is located in the Panhandle which is in the **Great Plains of Texas**. Our **climate** is hot and dry. The cattle that roamed this area long before our ranch was established was the Texas Longhorn. They are perfectly suited for our area. We still have some Longhorns on the ranch, but I don't mess around with those guys!*

ACTIVITY INSTRUCTIONS:

*You are a rancher and need to choose the breed of cattle you want to sell at auction!
(Auction is the market where ranchers bring cattle to sell to and buy from other ranchers.)*

1. Look at your CATTLE CHARACTERISTICS - QUICK REFERENCE CARDS and identify characteristics each breed has in common. Then identify the characteristics that are different.
2. Decide as a group what breed of cattle you would like to sell, taking into consideration the characteristics you think would be most appealing to other ranchers. Don't forget to consider the inherited traits that will be passed on to young calves when the new cattle reproduce with the rancher's own cattle!
3. As a group, make an informative and easy-to-read poster to help advertise the benefits, adaptations and inherited traits of your chosen cattle breed.
4. Use your group's poster as a visual aide when it is your turn to sell your cattle to your class, ur, I mean... sell your cattle at auction!

WRAP UP:

Fill out THE BOTTOM LINE worksheet after you have completed the activity.





CATTLE BREED QUICK REFERENCE

ANGUS



BENEFITS

- High-quality meat
- Relatively hardy
- Calm
- Calves easily

ADAPTATIONS

- Coloring prevents sunburns and cancer

ORIGIN

- Scotland

SIZE

- Bull: 1800-2400 lbs.
- Cow: 1200-1600 lbs.

COLOR(S)

- Black



CATTLE BREED QUICK REFERENCE

RED ANGUS



BENEFITS

- Long life span
- Quiet, easy going
- Good maternal instincts
- Easy calving
- High-quality, marbled meat

ADAPTATIONS

- Hardy to a variety of weather conditions

ORIGIN

- England
- Scotland

SIZE

- Bull: 1800-2300 lbs.
- Cow: 1100-1500 lbs.

COLOR(S)

- Red



CATTLE BREED QUICK REFERENCE

BEEFMASTER



BENEFITS

- High fertility, good maternal instincts
- Intelligent, gentle
- Most hardy breed
- Excellent growth

ADAPTATIONS

- Heat, drought and insect tolerant

ORIGIN

- U.S.A. (Texas)

SIZE

- Bull: 1900-2400 lbs.
- Cow: 1050-1250 lbs.

COLOR(S)

- No color restriction
- Mainly red and dun colors



CATTLE BREED QUICK REFERENCE

BONSMARA



BENEFITS

- High-quality meat
- Large size
- High fertility
- Calm, easy to handle

ADAPTATIONS

- Sub-tropic climate

ORIGIN

- South Africa

SIZE

- Bull: 2000 lbs.
- Cow: 1100 lbs.

COLOR(S)

- Red



RED ANGUS

BULL - \$ 200 COW - \$ 160

WANT TO PURCHASE ADDITIONAL CATTLE FOR YOUR RANCH?

Be sure to consider the following first!

1. GEOGRAPHIC LOCATION OF YOUR RANCH

Does your region have grass as a food source for your cattle? What type of terrain is found in your region? What is your climate?

2. COST FOR FEED PER BULL/COW

The more cattle you buy, the more feed you will also need to purchase. Feed costs \$100 - \$200 per month depending on the amount of cattle you buy, how much they eat, and how much grass you grow on your ranch. (Be sure to note the feed cost for each breed of cattle you are considering.)

3. AMOUNT OF ACREAGE YOU OWN

Each bull or cow will need 25 acres of grass.



ANGUS

BULL - \$ 225 COW - \$ 190

WANT TO PURCHASE ADDITIONAL CATTLE FOR YOUR RANCH?

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1. GEOGRAPHIC LOCATION OF YOUR RANCH

Does your region have grass as a food source for your cattle? What type of terrain is found in your region? What is your climate?

2. COST FOR FEED PER BULL/COW

The more cattle you buy, the more feed you will also need to purchase. Feed costs \$100 - \$200 per month depending on the amount of cattle you buy, how much they eat, and how much grass you grow on your ranch. (Be sure to note the feed cost for each breed of cattle you are considering.)

3. AMOUNT OF ACREAGE YOU OWN

Each bull or cow will need 25 acres of grass.



BONSMARA

BULL - \$ 250 COW - \$ 200

WANT TO PURCHASE ADDITIONAL CATTLE FOR YOUR RANCH?

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2. COST FOR FEED PER BULL/COW

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3. AMOUNT OF ACREAGE YOU OWN

Each bull or cow will need 25 acres of grass.



BEEFMASTER

BULL - \$ 295 COW - \$ 240

WANT TO PURCHASE ADDITIONAL CATTLE FOR YOUR RANCH?

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The more cattle you buy, the more feed you will also need to purchase. Feed costs \$100 - \$200 per month depending on the amount of cattle you buy, how much they eat, and how much grass you grow on your ranch. (Be sure to note the feed cost for each breed of cattle you are considering.)

3. AMOUNT OF ACREAGE YOU OWN

Each bull or cow will need 25 acres of grass.



CATTLE BREED QUICK REFERENCE

BRAFORD



BENEFITS

- Good beef yields
- Superior maternal ability
- Best in warm climates

ADAPTATIONS

- A chemical in their blood makes them heat and insect repellent

ORIGIN

- U.S.A. (Louisiana)
- Australia

SIZE

- Bull: 1750-2000 lbs.
- Cow: 1150-1250 lbs.

COLOR(S)

- Red with white head, feet and underbelly



CATTLE BREED QUICK REFERENCE

BRAHMAN



BENEFITS

- Thrives in warm tropical conditions
- Intelligent, shy, sensitive
- Quick growth

ADAPTATIONS

- Skin oil repels insects
- Glossy hair reflects sunlight
- Loose skin allows for fast cooling
- Hump provides fat energy

ORIGIN

- India

SIZE

- Bull: 1600-2200 lbs.
- Cow: 1000-1400 lbs.

COLOR(S)

- Light gray, red and black



CATTLE BREED QUICK REFERENCE

BRANGUS



BENEFITS

- Heat/high humidity resistant
- Hardy in cold climates
- Good maternal instincts
- Resistant to ticks/bloat
- Rapid weight gain

ADAPTATIONS

- Hump provides fat energy
- Produce more hair in cooler conditions
- Adapts to most climates

ORIGIN

- U.S.A.

SIZE

- Bull: 2000 lbs.
- Cow: 1200 lbs.

COLOR(S)

- Solid black with small amounts of white on the under belly



CATTLE BREED QUICK REFERENCE

CHAROLAIS



BENEFITS

- High quality beef
- Grow fast & large in size
- Ease of handling/calving

ADAPTATIONS

- Maintains longer, thicker hair in winter/sleeker, shorter in summer
- Sturdy hooves
- Large, hardy calves
- Prone to sunburn (light coat)

ORIGIN

- France

SIZE

- Bull: 2000-2400 lbs.
- Cow: 1250-1600 lbs.

COLOR(S)

- Cream/white



BRAHMAN

BULL - \$ 250 COW - \$ 200

WANT TO PURCHASE ADDITIONAL CATTLE FOR YOUR RANCH?

Be sure to consider the following first!

1. GEOGRAPHIC LOCATION OF YOUR RANCH

Does your region have grass as a food source for your cattle? What type of terrain is found in your region? What is your climate?

2. COST FOR FEED PER BULL/COW

The more cattle you buy, the more feed you will also need to purchase. Feed costs \$100 - \$200 per month depending on the amount of cattle you buy, how much they eat, and how much grass you grow on your ranch. (Be sure to note the feed cost for each breed of cattle you are considering.)

3. AMOUNT OF ACREAGE YOU OWN

Each bull or cow will need 25 acres of grass.



BRAFORD

BULL - \$ 275 COW - \$ 225

WANT TO PURCHASE ADDITIONAL CATTLE FOR YOUR RANCH?

Be sure to consider the following first!

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2. COST FOR FEED PER BULL/COW

The more cattle you buy, the more feed you will also need to purchase. Feed costs \$100 - \$200 per month depending on the amount of cattle you buy, how much they eat, and how much grass you grow on your ranch. (Be sure to note the feed cost for each breed of cattle you are considering.)

3. AMOUNT OF ACREAGE YOU OWN

Each bull or cow will need 25 acres of grass.



CHAROLAIS

BULL - \$ 280 COW - \$ 240

WANT TO PURCHASE ADDITIONAL CATTLE FOR YOUR RANCH?

Be sure to consider the following first!

1. GEOGRAPHIC LOCATION OF YOUR RANCH

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2. COST FOR FEED PER BULL/COW

The more cattle you buy, the more feed you will also need to purchase. Feed costs \$100 - \$200 per month depending on the amount of cattle you buy, how much they eat, and how much grass you grow on your ranch. (Be sure to note the feed cost for each breed of cattle you are considering.)

3. AMOUNT OF ACREAGE YOU OWN

Each bull or cow will need 25 acres of grass.



BRANGUS

BULL - \$ 250 COW - \$ 200

WANT TO PURCHASE ADDITIONAL CATTLE FOR YOUR RANCH?

Be sure to consider the following first!

1. GEOGRAPHIC LOCATION OF YOUR RANCH

Does your region have grass as a food source for your cattle? What type of terrain is found in your region? What is your climate?

2. COST FOR FEED PER BULL/COW

The more cattle you buy, the more feed you will also need to purchase. Feed costs \$100 - \$200 per month depending on the amount of cattle you buy, how much they eat, and how much grass you grow on your ranch. (Be sure to note the feed cost for each breed of cattle you are considering.)

3. AMOUNT OF ACREAGE YOU OWN

Each bull or cow will need 25 acres of grass.



CATTLE BREED QUICK REFERENCE

HEREFORD



BENEFITS

- Beef sells for high price
- Calves bring high sales price
- Lower winter costs
- Long life span

ADAPTATIONS

- Hardy breed
- Withstands tougher climates and weather

ORIGIN

- England

SIZE

- Bull: 1800-2400 lbs.
- Cow: 1200-1500 lbs.

COLOR(S)

- Red to yellow with white face



CATTLE BREED QUICK REFERENCE

LONGHORN



BENEFITS

- High fertility
- Hardy breed
- Disease/parasite resistant
- Long life span
- Lean meat

ADAPTATIONS

- Resistant to drought
- Gain weight rapidly in good conditions
-

ORIGIN

- U.S.A. (Texas)

SIZE

- Bull: 1500 lbs.
- Cow: 1000 lbs.

COLOR(S)

- Red, black, yellow, brown, cream, spotted



CATTLE BREED QUICK REFERENCE

SHORTHORN



BENEFITS

- Mild disposition
- Long life span
- Superior marbling in meat

ADAPTATIONS

- Female traits of early maturity, fertility, docility, ease of calving
- Increased tenderness in meat

ORIGIN

- England

SIZE

- Bull: 2200-2800 lbs.
- Cow: 1300-1700 lbs.

COLOR(S)

- Red, white, roan



CATTLE BREED QUICK REFERENCE

ZEBU



BENEFITS

- Heat tolerant
- Hardy breed
- Used most in ag work
- Disease/parasite resistant

ADAPTATIONS

- Skin oil repels insects
- Glossy hair reflects sunlight
- Loose skin allows for fast cooling
- Hump provides fat energy

ORIGIN

- Southwest Asia

SIZE

- Bull: 440 lbs.
- Cow: 331 lbs.

COLOR(S)

- Red



LONGHORN

BULL - \$ 225 COW - \$ 175

WANT TO PURCHASE ADDITIONAL CATTLE FOR YOUR RANCH?

Be sure to consider the following first!

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2. COST FOR FEED PER BULL/COW

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3. AMOUNT OF ACREAGE YOU OWN

Each bull or cow will need 25 acres of grass.



HEREFORD

BULL - \$ 250 COW - \$ 200

WANT TO PURCHASE ADDITIONAL CATTLE FOR YOUR RANCH?

Be sure to consider the following first!

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3. AMOUNT OF ACREAGE YOU OWN

Each bull or cow will need 25 acres of grass.



ZEBU

BULL - \$ 100 COW - \$ 75

WANT TO PURCHASE ADDITIONAL CATTLE FOR YOUR RANCH?

Be sure to consider the following first!

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3. AMOUNT OF ACREAGE YOU OWN

Each bull or cow will need 25 acres of grass.



SHORTHORN

BULL - \$ 250 COW - \$ 200

WANT TO PURCHASE ADDITIONAL CATTLE FOR YOUR RANCH?

Be sure to consider the following first!

1. GEOGRAPHIC LOCATION OF YOUR RANCH

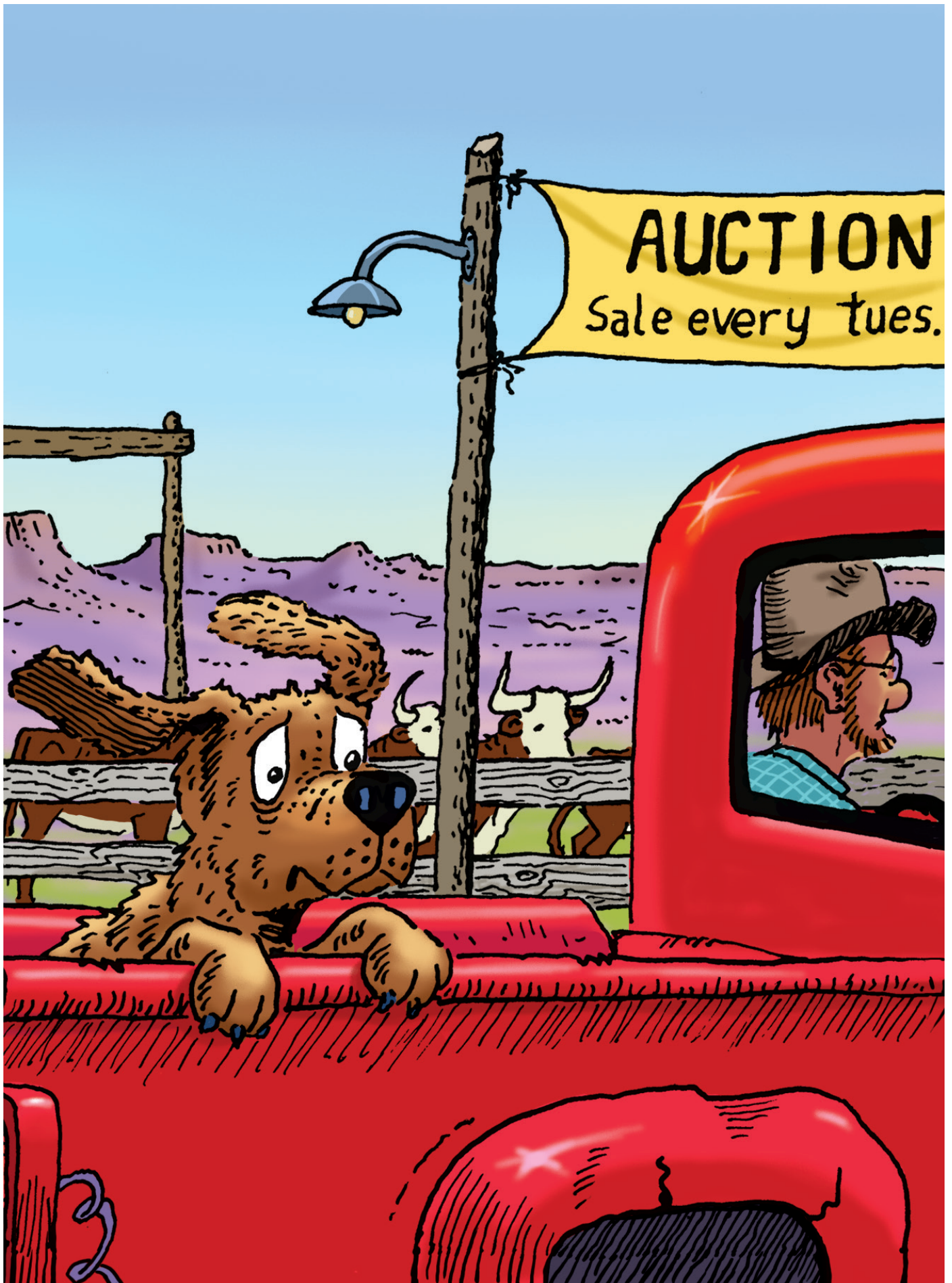
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The more cattle you buy, the more feed you will also need to purchase. Feed costs \$100 - \$200 per month depending on the amount of cattle you buy, how much they eat, and how much grass you grow on your ranch. (Be sure to note the feed cost for each breed of cattle you are considering.)

3. AMOUNT OF ACREAGE YOU OWN

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Cattle Characteristics



NAME: _____ DATE: _____

THE BOTTOM LINE

Cattle come in many sizes, shapes, and colors. Each cattle breed has different *benefits* and *limitations* that make it ideal for certain *climates* and ranches.

Answer the questions below:

1. Which physical characteristics do the cattle have in common? (shape, hooves, coloring, etc...)
2. What did the cattle from tropical warm locations have in common?
3. Why do ranchers pay such close attention to the different inherited traits such as: structures, weight, and color?
4. What behaviors would a rancher prefer in his/her cattle herd? Explain your answer.
5. If you had to choose your favorite breed of cattle what would it be and why?

