

Beef or Dairy?

Objective

Students will learn to distinguish between beef and dairy cows and create booklets to reinforce their learning. Students will ask questions to clarify the difference between beef and dairy cattle. Students will use the new information to write about the differences between beef and dairy cattle. Students will draw beef and dairy cattle using two-dimensional shapes.

Background

In Oklahoma, cattle are a familiar part of the landscape. Most of the cattle you see are beef cattle. In 2015, cattle and calf operations were the number one most valuable agricultural commodity in our state and number five in the nation. Oklahoma had 1.9 million beef cows and 40,000 milk cows in 2015.

We get meat from beef cows and milk products from dairy cows. Although females from all cattle breeds produce milk and meat, some cattle are better at giving milk, and some are better at providing meat.

Since we get milk from dairy cows, they usually have very large udders. For that reason their basic shapes are different from beef cows. The basic shape of a beef cow is a rectangle. The basic shape of a dairy cow is a trapezoid.

Some common dairy cattle have markings that make them easy to recognize. Holstein cattle are probably the easiest to recognize. They are white with black spots. Dairy cattle, like beef cattle, come in many different colors.

Because they must be milked every day, dairy cattle usually stay close to the dairy barn. Beef cattle do not have to stay so close to home and are sometimes moved around from pasture to pasture. Sometimes the fields are many miles away from the farm or ranch house. For that reason the cattle you see in fields along the side of the road are more likely to be beef cattle.

Procedures

1. Use a KWL chart to find out what students know and want to know about beef and dairy cattle.
 - Students will listen while you read the background information.
 - Lead a discussion about the different colors and patterns students have seen in cattle.
 - Fill in the L column of the DWL chart.
2. Hand out beef and dairy booklets (Student Worksheets B and

KINDERGARTEN

Speaking and Listening: R.1,2,3,4; W.1,2.

Print Concepts: 2,3,4,5. Reading and

Writing Process: R.1,3; W.1. Critical

Writing

Life Science: 1-1

Geometry: 1.1,2,3,4,6

Visual Art—1.2

GRADE 1

Speaking and Listening: R.1,2,3,4; W.1,2.

Print Concepts: 1. Reading and Writing

Process: R.1,3; W.1. Critical Writing: 2

Life Science—2.1

Geometry: 1.1,2

Visual Art Expression: 2,3. Visual Art

Connection: 4

GRADE 2

Speaking and Listening: R.1,2,3,4; W.1,2.

Print Concepts: 2. Reading and Writing

Process: R.1,2,3; W.1. Critical Writing: 2

Life Science—4.1

Geometry: 1.1,2,3

Visual Art Expression: 2,3. Visual Art

Connection: 4

Vocabulary

beef—the flesh of a cow, steer, heifer or bull

bovine—an animal of the family Bovidae; cattle

bull—adult male bovine mammal

calf—the young of the bovine family

cattle—live animals held as property or raised for some use, usually mature bovine animals, such as cows, bulls and steers

cow—the mature female of any bovine animal

heifer—a young cow that has not given birth to a calf

herd—a group of cattle or other domestic animals of a single kind that are kept together for a specific use

steer—a young bovine animal castrated before sexual maturity and raised for beef

udder—the bag containing the mammary glands of a domestic animal

Ag Career: Dairy Farmer

JOB DESCRIPTION: Dairy farmers maintain herds of milk cows. They supervise the breeding, feeding, milking and managing of the herd. Dairy farmers must also be familiar with and maintain the high technology and expensive equipment used in dairy farming.

SKILLS: The dairy farmer should like working outdoors with crops, livestock and machinery. He/she should have good business sense and be able to make successful major and minor farm management decisions. The work requires a knowledge of soil chemistry, plant and animal physiology, genetics, nutrition, entomology, farm management and economics.

PREPARATION: High school courses in agriculture and college degree in dairy or animal science. Part time work experience on a farm.

Ag Career: Rancher

JOB DESCRIPTION: Livestock ranchers breed and sell animals for food. Products vary for each ranch depending on the geographic location, climate and space available. Cattle, pigs and poultry are a few of the animals raised for food. Sheep and goats are raised for wool and dairy products.

SKILLS: Ranchers must keep detailed financial records and be active in the marketing and sale of their products. They use computer technology to manage ranch business. They negotiate with financial institutions to obtain loans for purchase of livestock, machinery and other necessary items. Those who hire employees are responsible for setting policies, ensuring efficiency and keeping salary and scheduling information. Making sure the livestock is fed, given water, kept in humane living conditions and successfully reproducing are all part of a rancher's duties. Additional duties include assisting in the birth of animals, castrating, shearing, docking, dehorning, branding or tagging.

PREPARATION: Although there are no formal education requirements, a college degree is becoming increasingly important for success in the field.

C, included with this lesson).

—Students will fold the booklets as directed, then read through them one at a time.

—Students will color the pictures according to the colors indicated for each breed.

3. Students will write about the differences between beef and dairy cattle.
4. Draw a variety of basic shapes on the chalkboard—square, rectangle, circle, triangle, oval, etc. Provide several common items representing these shapes.
—Students will match the items as closely as possible with the basic shapes you have drawn on the chalkboard.
—Lead a discussion about the shapes of beef and dairy cattle as discussed in the background.
—Students will help you draw a cow on the chalkboard by telling you which basic shapes to use.
5. Use a Venn diagram to chart the similarities and differences between beef and dairy cattle, based on the background information included in this lesson.
6. Bring beef and dairy snacks.
—Students will sort them before eating them.
7. Bring products made from beef and dairy cattle to class.
—Students will sort them to create beef and dairy product tables.
8. Students will design their own beef and dairy cows, starting with the appropriate shapes (trapezoid for beef; triangle for dairy).

Extra Reading

Cronin, Doreen, and Betsy Lewin, *Click, Clack, Moo: Cows That Type*, Little Simon, 2011.

Murphy, Andy, *Out and About at the Dairy Farm*, Picture Window, 2004.

Peterson, Cris, *Clarabelle: Making Milk and So Much More*, Boyds Mills, 2007.

Ray, Hannah, *Cows (Down on the Farm)*, Crabtree, 2008.

Townsend, Una Belle, Bob Artley and Yolanda Powell, *Grady's in the Silo*, Pelican, 2003.

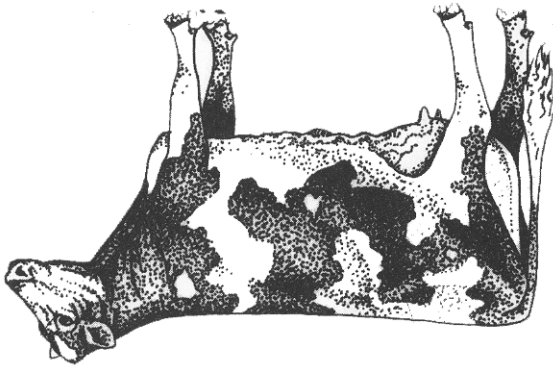
Van Fleet, Matthew, *Moo*, Simon & Schuster, 2011.

Wolfman, Judy, and David Lorenz Winston, *Life on a Cattle Farm*, Lerner, 2002.

Beef or Dairy?

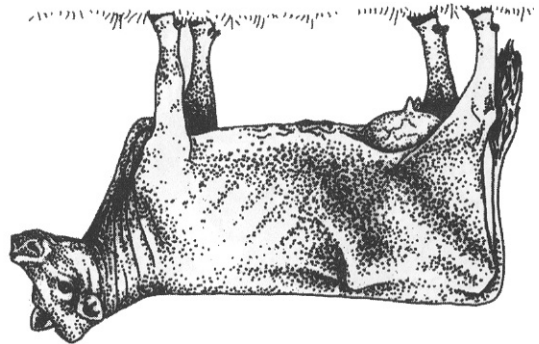
Read the sentences. Color the pictures. Cut on the dotted lines. Fold on the solid lines.

Guernsey cows have orange
bodies with white markings
and white tails.



3

Jersey cows have tan bodies
and brown feet. The tips of
their tails are white.



2

Dairy Cattle

by _____



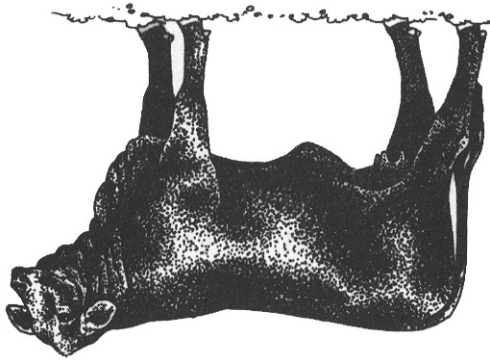
Holstein cows are some of
the top producers of milk.
A Holstein cow is black and
white.



Beef or Dairy?

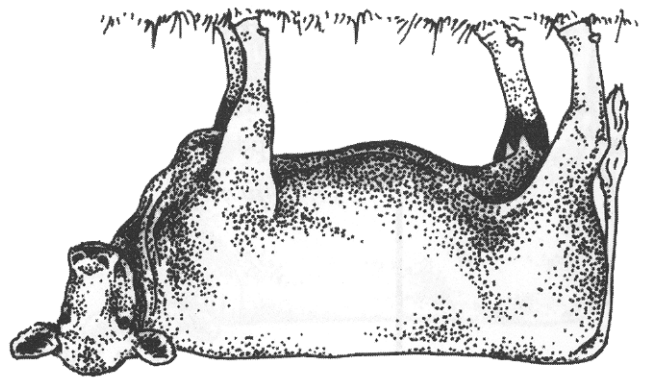
Read the sentences. Color the pictures. Cut on the dotted lines. Fold on the solid lines.

Brangus cows are black and saggy



3

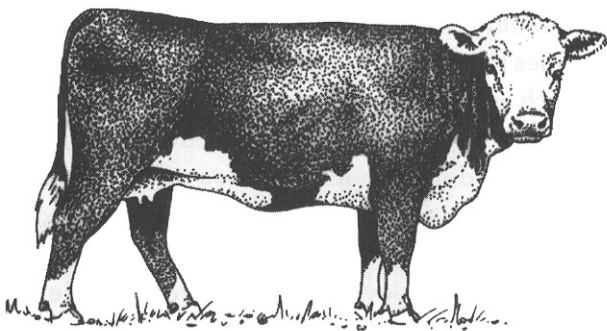
Charolais cows are creamy
white with pink noses.



2

Beef Cattle

by _____



Hereford cattle have reddish
bodies and white faces.

