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 2014, 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.

English Language Arts
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 C, included with this lesson).

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
—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.

Science/Math
1. 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.
2. Use a Venn diagram to chart the similarities and differences between beef and dairy cattle, based on the background information included in this lesson.
3. Bring beef and dairy snacks.
—Students will sort them before eating them.
4. Bring products made from beef and dairy cattle to class.
—Students will sort them to create beef and dairy product tables.

Visual Art
1. 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.

www.agclassroom.org/ok
Reading the sentences. Color the pictures. Cut on the dotted lines. Fold on the solid lines.

Guernsey cows have orange bodies with white markings. Their tails are white.

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

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

Oklahoma Ag in the Classroom is a program of the Oklahoma Department of Agriculture, Food and Forestry, the Oklahoma State Department of Education and the Oklahoma Cooperative Extension Service.
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.
Charolais cows are creamy white with pink noses.
Hereford cattle have reddish bodies and white faces.

Beef Cattle

by ____________________

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