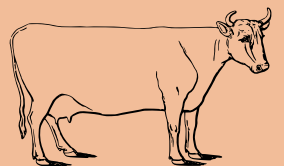
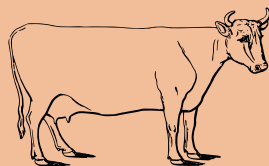
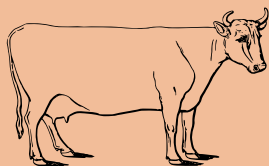
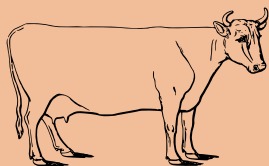
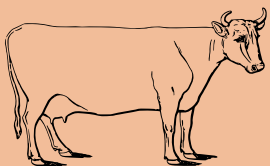


NEW MEXICO
FARM & RANCH
HERITAGE
MUSEUM

BEEF AND DAIRY BY-PRODUCTS



NEW MEXICO DEPARTMENT OF
CULTURAL AFFAIRS





Beef and Dairy By-products

Grades 3-5

Vocabulary:

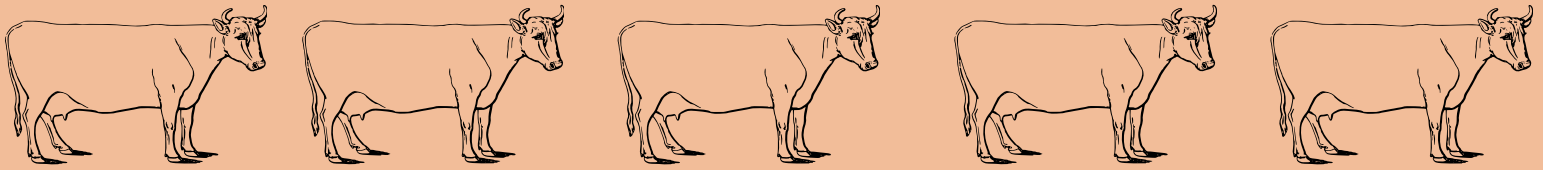
Beef Product

Dairy Product

By-product

Not only do cattle produce products such as beef, milk, and leather, but they also produce by-products. In this activity students will learn of many other items that come from cattle that we use in our daily lives.





Beef Products:

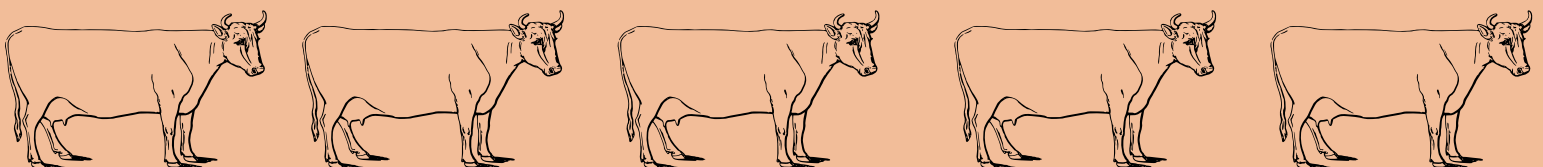
Have you wondered where our hamburgers that we eat come from? That's right, beef cattle. Beef cattle provide us with steaks, hamburgers, ribs, and all sorts of beef cuts we eat daily. If beef cattle weigh around 1,000 pounds each, an animal provides us with 600 pounds of meat. What happens to the other 400 pounds of the animal? Well, we would produce by-products.

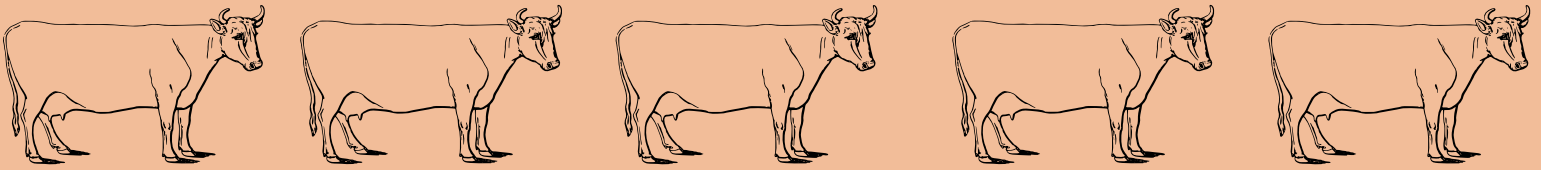
Dairy Products:

What are examples of dairy products? Milk, cheese, and butter are all products that come from dairy cattle. Dairy cattle also provide us with meat and leather. The hides of cattle can be used to make many items we use daily: jackets, shoes, basketballs, and even baseball gloves.

By-products:

Can you guess what a by-product is? By-products are products that we get from beef/dairy cattle that might not be quite so obvious. For example, did you know that soap is a beef by-product because it contains beef fat? By-products can be made from intestines, fats and fatty acids, gelatin, hide, hair, and even plasma protein in the blood.





Match the following words to the appropriate column on the following page:

- | | | |
|-----------------|-------------------|----------------------|
| Crayon | Butter | Glass |
| Soap | Toothpaste | Wool |
| Cheese | Leather | Jello |
| Bacon | Steak | Candle |
| Cotton | Milk | Hamburger |
| Pen | Glue | Chewing Gum |
| Band-aid | Pencil | Gummy Candies |

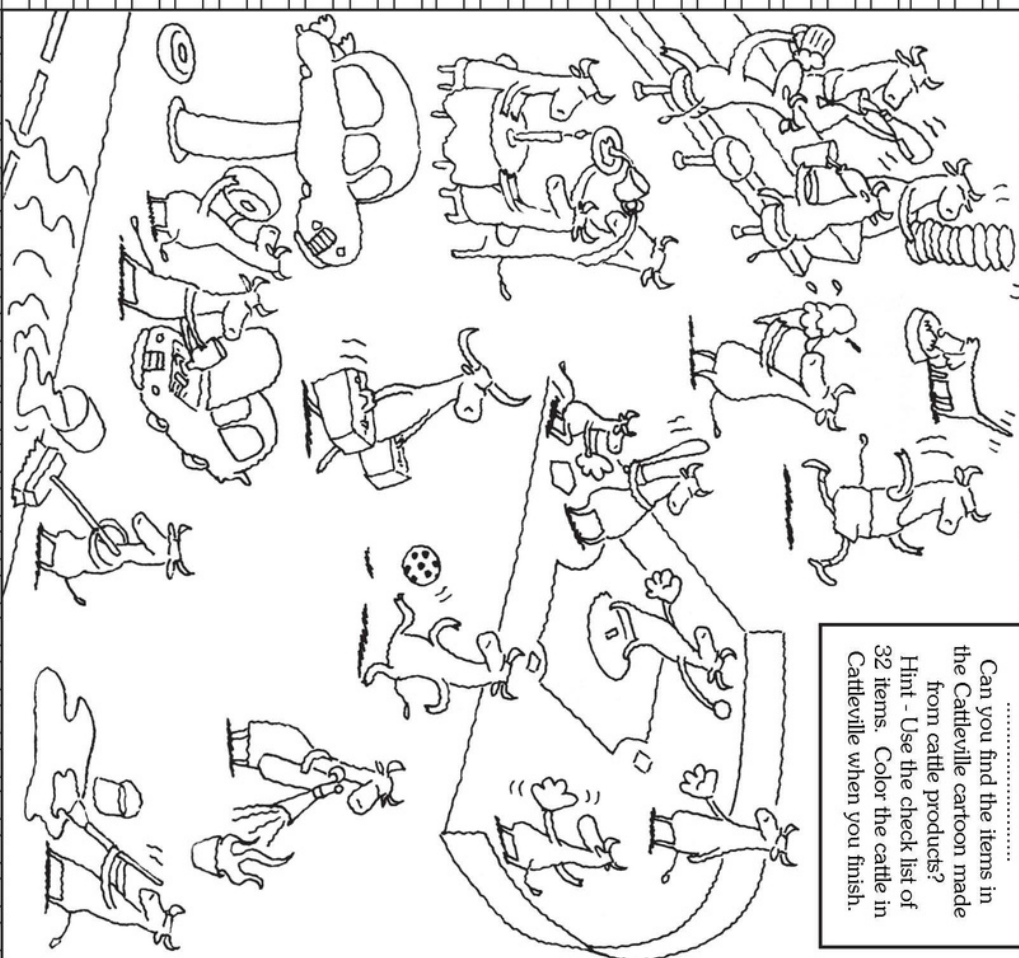
Dairy/Beef Product

Dairy/Beef Byproducts

Not a Dairy/Beef
Byproduct

CATTLEVILLE

Can you find the items in the Cattleville cartoon made from cattle products?
Hint - Use the check list of 32 items. Color the cattle in Cattleville when you finish.



From Cattle

Check the items off as you go.

Hides and Hair

- | | |
|---|---|
| <input type="checkbox"/> Paint Brush | <input type="checkbox"/> Leather Jacket |
| <input type="checkbox"/> Furniture Glue | <input type="checkbox"/> Leather Chair or Stool |
| <input type="checkbox"/> Wallpaper | <input type="checkbox"/> Building Insulation |
| <input type="checkbox"/> Baseball | <input type="checkbox"/> Leather Suitcase |
| <input type="checkbox"/> Soccer Ball | <input type="checkbox"/> Baseball Glove (Mitt) |

Fats/Fatty/Acids

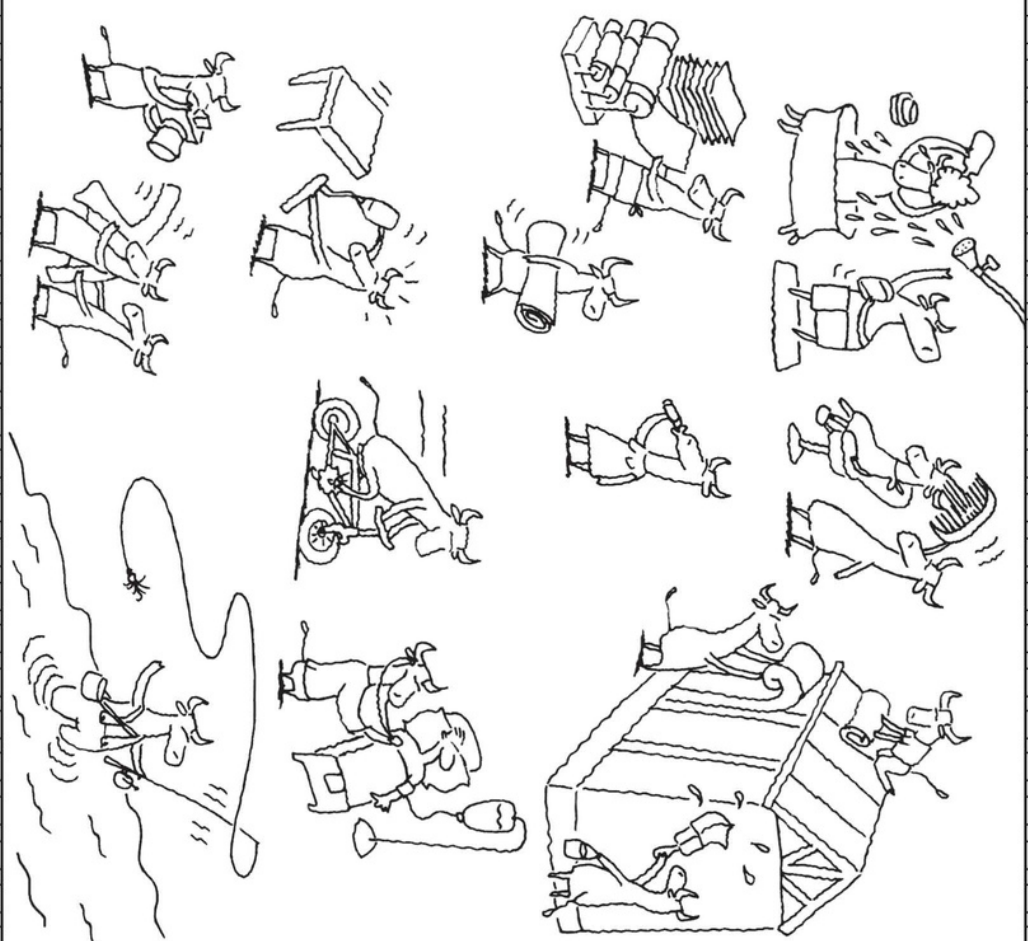
- | | |
|--|------------------------------------|
| <input type="checkbox"/> Hydraulic Brake Fluid | <input type="checkbox"/> Floor Wax |
| <input type="checkbox"/> Rubber Fishing Waders | <input type="checkbox"/> Tires |
| <input type="checkbox"/> Running Shoes | <input type="checkbox"/> Deodorant |
| <input type="checkbox"/> Asphalt | <input type="checkbox"/> Shampoo |
| <input type="checkbox"/> Candle | <input type="checkbox"/> Bar Soap |
| <input type="checkbox"/> Lipstick | |

Bones, Horns, Hooves, Blood and Gelatin

- | | |
|--|--|
| <input type="checkbox"/> Beer | <input type="checkbox"/> Camera Light Filter |
| <input type="checkbox"/> China Dishes | <input type="checkbox"/> Camera Film |
| <input type="checkbox"/> Ice Cream | <input type="checkbox"/> Dog Food |
| <input type="checkbox"/> Milkshake | <input type="checkbox"/> Printing Press |
| <input type="checkbox"/> Fire Extinguishing Foam | <input type="checkbox"/> Comb |

From Pancreas

- ☐ Medicine



Answers:

Dairy/Beef Products:

Cheese, Butter, Steak, Milk, Hamburger

Dairy/Beef By-products:

**Leather, Crayon, Soap, Band-Aid, Toothpaste, Glue,
Jello, Candle, Chewing Gum, Gummy Candies**

Not Dairy/Beef products or By-products:

Cotton, Pen, Pencil, Glass, Wool, Bacon

3-5 Standards

Science

3.Inheritance and Variation of Traits: Life Cycles and Traits

3-LS3-1. Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.

3-LS4-3. Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.

4.Structure, Function, and Information Processing

4-LS1-1. Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

5.Matter and Energy in Organisms and Ecosystems

5-PS3-1. Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun.

English Language Arts

Comprehension and Collaboration:

CCSS.ELA-LITERACY.CCRA.SL.1

Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.

CCSS.ELA-LITERACY.CCRA.SL.2

Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.

CCSS.ELA-LITERACY.CCRA.SL.3

Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.

