



Beef Worksheet

Objective:

Students will be able to identify by-products (value-added products) other than beef that come from cattle.

Indiana Academic Standards

Animal Science

AS-1.4 - Analyze the impact of animal production methods on end product qualities.

National Agriculture Literacy Outcomes

Science, Technology, Engineering & Mathematics Outcomes

T4.9-12g - Provide examples of how processing adds value to agricultural goods and fosters economic growth both locally and globally.

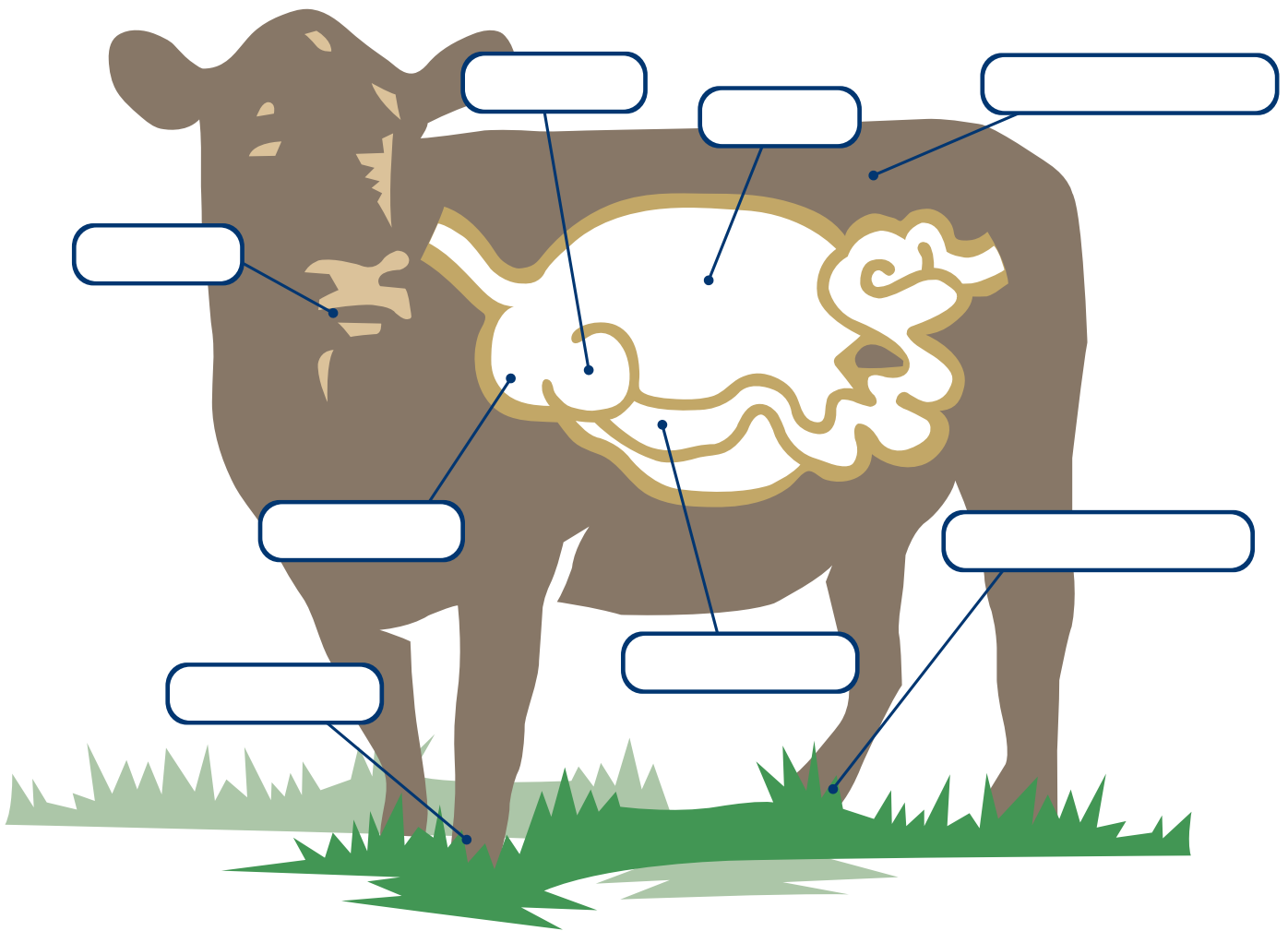
Materials:

- Writing Utensil
- Student Worksheet

Activity: What else do we get from cattle besides beef and milk? Discover the many byproducts from cattle. Byproducts are value-added products with considerably less value than the primary product. Create a web displaying where these byproducts come from in association from the animal.

Helpful hints:

- What comes from cattle bones, hooves, blood and glands?
- What is made from the hide of cattle?
- What is made from the fat from cattle?





Teacher Answer Key

Help students create a web showing many of the byproducts.

Cattle bones, hooves, blood and glands are used for: glue, medicines, fertilizer, bone china, pet foods and gelatin. Gelatin is made from cattle bones that are crushed and cooked. Gelatin is found in the following: Jell-O, marshmallows, ice cream, yogurt, matches, gummi bears and chewing gum.

The hide of cattle is made into leather: furniture, baseball gloves, sports balls and leather products such as belts, briefcases, shoes, gloves and purses.

Fat from cattle is made into fatty acids. These fatty acids are used in the manufacture of many products including soaps, shampoos, crayons, cosmetics, tires and shaving cream.

Background Information:

- In Indiana, there is a lot of pastureland available to raise beef cattle. Beef cattle need grass-land to range on and turn forage into energy.
- Washington County has the most head of beef cattle in Indiana.
- Indiana is home to more than 800,000 head of cattle.
- In 2018 the beef exports accounted for a total of \$7.27 billion.
- Exports count for around 13% of beef production in the United States.
- Texas produces the most beef cattle in the United States.

Careers:

Geneticist, ranch manager, meat packer and embryologist