

MIDDLE SCHOOL
CURRICULUM

MEET THE **MEAT**



BEEF
FARMING



Funded in part by
The Beef Checkoff



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Note:

This topical must be accompanied with the Overview for complete understanding.

I. Enduring Knowledge:

Students will learn that human beings get many other products from cattle besides meat. They will understand that most of these products are derived from parts of the cow and are not easily identified with cattle. They will learn that using the entire animal was common in our history.

Learning Targets:

1. Students should learn the names of many household products made from cattle.
2. Students should learn other products derived from cattle including those used in cars, roads, and medicine.
3. Students should learn that using as much of the cow as possible prevents waste.

TEACHER BACKGROUND NOTES:

1. EPA History of Cattle Production and by-products in US:
<http://www.epa.gov/agriculture/ag101/printbeef.html>

Vocabulary:

1. **glycerol:** colorless, odorless syrupy liquid derived from animal fat
2. **asphalt:** mixture of bituminous pitch mixed with sand/gravel used to surface roads
3. **biofuel:** fuel produced from renewable biological resources
4. **lubricant:** A substance, such as oil or grease, used for minimizing friction, especially in an engine or component.

II. Prior Knowledge:

Put students in small groups. Have one act as secretary to write ideas and give report after ten minutes. Have students discuss and share:

1. Other products besides meat that come from a cow hides (hint, think of Indians/Pioneers)
2. Give each group a bar of soap – give 5 words to describe. What part of the cow is used in soap? (glycerol)

III. Viewing Guide:

Answer the following questions while watching the video:

1. List 4 household products that make use of cow fat or protein.
2. Give one clothing product made from cowhide.
3. List 3 car/transportation products that make use of cow fat.
4. List 2 medical products derived from cattle.

IV. Discussion Points:

Review questions. The medical section of this video is complex for middle schoolers. Focus on the more basic products.

Use resources above to discuss uses of products that come from cattle other than meat.

Show this video on making leather: http://www.youtube.com/watch?v=9vbTCeYwt_g

Bring leather products to show and/or have students bring from home – eg. belts, moccasins, wallets, jackets, jewelry, purses, vests, pouches.

V. Evaluation:

Quiz: Answer questions below.

1. List 4 important modern products (other than meat) made from cattle. For each, explain what is used and why it is important.
2. List 2 early products that came from cattle still used today.
3. List 2 early products that came from cattle not used today.
4. Explain why it is a good thing that we make by-products after slaughtering cattle for food.

VI. Suggestions for Extended Learning:

5. Visit a soap-maker. Have him/her show how soap is made.
6. Research and make a list of beef industry by-products. Then make a list of similar synthetic products and compare how each are used.

Wisconsin Teacher Standards which can be met with this curriculum, including rationale.

Standard 1: Subject matter.

This curriculum provides information not readily available in other forms. A teacher using this material will be well-informed about the subject matter.

Standard 2: Broad range of ability.

This curriculum provides instruction that supports their intellectual, social, and personal development.

Standard 3: Adapt instruction.

Adapt instruction. This curriculum provides suggestions for learners with a variety of intelligences and levels of ability.

Standard 4: Instructional strategies.

This curriculum includes the use of technology to gain information and suggestion for using research in extending learning.

Standard 5: Individual and group motivation.

Both prior knowledge and carefully designed group projects promote motivation for students to learn.

Standard 6: Verbal and nonverbal communications.

Instruction media and technology that promotes active learning are key parts of this curriculum.

Standard 7: Organizes and plans systematic instruction.

This curriculum is organized to support teacher knowledge, to draw on and motivate students to engage in active learning, and promotes active inquiry, collaboration, and supportive interaction in the classroom.

Standard 8: Formal and informal assessments.

Suggestions for a variety of assessments, both formal and informal, are offered in the curriculum.

Standard 10: Fosters relationships.

This curriculum provides information regarding ways in which to actively interact with native communities, both face-to-face events and in using distance learning or technology (e.g. email) methods.

WISCONSIN STUDENT PROFICIENCY STANDARDS which can be met teaching
Beef Farming – Topic Video, Discover Mediaworks, 2012

Geography:

Students in Wisconsin will learn about geography through the study of the relationships among people, places, and environments.

History:

Students in Wisconsin will learn about the history of Wisconsin, the United States, and the world, examining change and continuity over time in order to develop historical perspective, to explain historical relationships, and analyze issues that affect the present and the future.

Political Science and Citizenship:

Students in Wisconsin will learn about political science and acquire the knowledge of political systems necessary for developing individual civic responsibility by studying the history and contemporary uses of power, authority and government.

Economics:

Students in Wisconsin will learn about production, distribution, exchange, and consumption so that they can make informed economic decisions.