

U.S. Geography: The Midwest: Teacher's Guide

Grade Level: 5-8

Curriculum Focus: Geography

Lesson Duration: Two or three class periods

Program Description

In this agriculturally important region, students observe how farmers work with the natural environment to grow crops. *Understanding Maps* – Formed by geologic events millions of years ago, the Midwest was once a sea of grass. Today the prairies of America's heartland provide food for millions. *The Prairie Ecosystem* – Sometimes a destructive force of nature, fire is an essential element in the life cycle of the prairie. *Feeding the United States* – Farming is vital to the economy and culture of the Midwest.

- Understanding Maps (6 min.)
 - The Prairie Ecosystem (8 min.)
 - Feeding the United States (7 min.)
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Onscreen Questions

Understanding Maps

- How has the terrain of the Midwest led to the diversity of its resources?
- How have the people of the Midwest used the challenges of the terrain and climate to their benefit?

America's Prairie

- What composes the special ecosystem of a grassland area?
- What is the importance of fire in maintaining the grassland ecosystem? How might this factor be a problem as well as an asset?

Feeding the United States

- What climate and terrain factors in the Midwest support the production of food?
 - What are the three main agricultural areas in the Midwest and how do they contribute to the food production of the United States? How might weather changes in this area affect food production?
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Lesson Plan

Student Objectives

- Learn about the geography of the Midwest.
- Examine the importance of agriculture to the Midwest economy.
- Create billboards advertising agricultural products grown in the Midwest.

Materials

- *U.S. Geography: The Midwest* video and VCR, or DVD and DVD player
- Pencils, erasers, and rulers
- Colored pencils, markers, or crayons
- White poster board or large mural paper
- Computer with Internet access (optional)
- Atlases and other library resources
- Advertisements for agricultural products: See the "Got Milk" (<http://www.whymilk.com>) and "California Cheese" (<http://www.calif-dairy.com>) Web sites for examples

Procedures

1. Open the lesson by discussing the term "America's Breadbasket" with students. Discuss the Midwest's geography, how topographical features such as the Great Lakes were formed, and why this region is so closely associated with farming and agriculture. A good way to introduce the Midwest and its "breadbasket" status is to show segments of the video *U.S. Geography: The Midwest*.
2. After watching the video, review some of the agricultural products the Midwest is known for (wheat, dairy, cranberries, cattle, and corn). Discuss the three sections of the Midwest – the Lake states, Northern Plains states, and Corn Belt. Ask students: Why are certain products grown in one region more than the others? How important is agriculture to the Midwest's economy?
3. Share magazine advertisements for agricultural products with students, and discuss how advertisers use slogans like "Got Milk?" to draw attention to their products. Ask students: How do advertising campaigns help promote and sell specific products? In what ways can they be used to inform people about unfamiliar or new products?
4. Divide students into groups, and have each group make a billboard advertising an agricultural product found in the Midwest. Allow groups to choose their own products, but make sure that the class has covered all the major products you've discussed. Students' billboards should be creative but must include the following:
 - A product slogan
 - Drawings, photographs, or some form of illustration
 - Uses for the product



- The Midwest state(s) where the product was grown or produced
 - Details about how the product was made
5. Give students time in class to begin researching products and creating their billboards. Have them complete the billboards as homework. Students may use magazines, atlases and other library resources, and the Internet to conduct their research. These Web sites are good resources:
- <http://www.geobop.com/World/NA/Topics/Industry/Ag/States/>
 - <http://www.startribune.com/stories/1282/53020.html>
 - <http://www.cmp.ucr.edu/photography/harvest/#>
 - <http://www.cyberspaceag.com/>
 - <http://www.iowafarmer.com/>
 - <http://www.campsilos.org/mod4/students/index.shtml>
 - <http://www.usembassy.de/usa/travel-regions.htm#midwest>
6. Have the groups “pitch” the completed billboards to the class, explaining their advertising strategy. Allow time for student questions about each group’s product and billboard.

Assessment

Use the following three-point rubric to evaluate students’ work during this lesson.

- **3 points:** Students actively participated in class discussions and their group’s advertising sales pitch; worked cooperatively in billboard groups; created good and colorful billboards that met all five criteria; attentively listened to the presentations.
- **2 points:** Students somewhat participated in class discussions and their group’s advertising sales pitch; worked somewhat cooperatively in billboard groups; created a presentable billboard that met three criteria; somewhat listened to the presentations.
- **1 point:** Students worked somewhat cooperatively in billboard groups; created a presentable billboard that met two or fewer criteria; hardly listened to the presentations.

Vocabulary

ecosystem

Definition: A community of plants and animals that live together in the same environment and depend on each other for survival

Context: The plants and animals of the grassland ecosystem thrive in this environment.

glacier

Definition: A huge, slow-moving mass of ice and snow

Context: The Great Lakes were formed by glaciers over a span of 2 million years.



grassland

Definition: Large, open areas of land covered in various types of grasses

Context: The American prairie is one type of grassland.

silt

Definition: A type of sediment made up of tiny particles of rock

Context: As the glaciers melted, they deposited rock, clay, and silt across the Midwest.

tectonic plates

Definition: Large sections of the Earth's crust that move against one another, generating volcanoes and earthquakes

Context: As the Earth's tectonic plates shifted and collided, they created a ridge of mountains in the western part of North America that stretches from the Sierra Nevada north to the Canadian Rockies.

Academic Standards

Mid-continent Research for Education and Learning (McREL)

McREL's Content Knowledge: A Compendium of Standards and Benchmarks for K-12 Education addresses 14 content areas. To view the standards and benchmarks, visit link:

<http://www.mcrel.org/compendium/browse.asp>

This lesson plan addresses the following national standards:

- Geography – The World in Spatial Terms: Knows the location of places, geographic features, and patterns of the environment; Human Systems: Understands the patterns and networks of economic interdependence on Earth's surface
- Language Arts – Writing: Uses the general skills and strategies of the writing process, Gathers and uses information for research purposes

The National Council for the Social Studies (NCSS)

NCSS has developed national guidelines for teaching social studies. To become a member of NCSS, or to view the standards online, go to <http://www.socialstudies.org>

This lesson plan addresses the following thematic standards:

- Culture
- People, Places, and Environments
- Production, Distribution, and Consumption
- Global Connections



Support Materials

Develop custom worksheets, educational puzzles, online quizzes, and more with the free teaching tools offered on the Discoveryschool.com Web site. Create and print support materials, or save them to a Custom Classroom account for future use. To learn more, visit

- <http://school.discovery.com/teachingtools/teachingtools.html>
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DVD Content

This program is available in an interactive DVD format. The following information and activities are specific to the DVD version.

How To Use the DVD

The DVD starting screen has the following options:

Play Video – This plays the video from start to finish. There are no programmed stops, except by using a remote control. With a computer, depending on the particular software player, a pause button is included with the other video controls.

Video Index – Here the video is divided into three parts (see below), indicated by video thumbnail icons. Watching all parts in sequence is similar to watching the video from start to finish. Brief descriptions and total running times are noted for each part. To play a particular segment, press Enter on the remote for TV playback; on a computer, click once to highlight a thumbnail and read the accompanying text description and click again to start the video.

Curriculum Units – These are specially edited video segments pulled from different sections of the video (see below). These nonlinear segments align with key ideas in the unit of instruction. They include onscreen pre- and post-viewing questions, reproduced below in this Teacher's Guide. Total running times for these segments are noted. To play a particular segment, press Enter on the TV remote or click once on the Curriculum Unit title on a computer.

Standards Link – Selecting this option displays a single screen that lists the national academic standards the video addresses.

Teacher Resources – This screen gives the technical support number and Web site address.

Video Index

I. Understanding Maps (6 min.)

In addition to its vast farmland, the Midwest also boasts some of the country's largest cities. Tour Chicago and Minneapolis and explore the unique features of the Midwest.

II. The Prairie Ecosystem (8 min.)

The Midwest is home to the prairie, a unique ecosystem. See how the grasslands came to be and learn about the plants and animals that call the prairie home.



III. Feeding the United States (7 min.)

Farming is part of the culture in America's heartland. Learn how cranberries, wheat, and other products are grown and peek into the daily life of a young rancher.

Curriculum Units

1. Cities of the Midwest

Pre-viewing question

Q: Why is Chicago known as the windy city?

A: Answers will vary.

Post-viewing question

Q: What is unique about the architecture of downtown Minneapolis?

A: The buildings of downtown Minneapolis are connected by skyways, which are enclosed heated passages built elevated over streets so people can avoid walking outside.

2. Midwest Terrain

Pre-viewing question

Q: Why is the Midwest called America's heartland?

A: Answers will vary.

Post-viewing question

Q: How were the Great Lakes formed?

A: Glacial meltdown left behind huge trenches filled with melted water, which created the Great Lakes. Connected by waterways and canals, the five Great Lakes are important shipping routes between the United States and Canada.

3. Grasslands of the Midwest

Pre-viewing question

Q: What is an ecosystem?

A: An ecosystem is community of plants and animals that live in the same environment.

Post-viewing question

Q: What kinds of animals live in the prairie?

A: Owls, bison, rattlesnakes, coyote, deer, many bird species, and lizards

4. The Birth of the Prairie

Pre-viewing question

Q: How does precipitation help create different ecosystems?

A: Large amounts of rain foster the growth of forests, and a humid atmosphere can create lush, tropical vegetation. Lack of rain fosters a dry environment and a desert-like ecosystem. If more rain fell on the prairie, it would be a forest. With less rain, it would become a desert.



Post-viewing question

Q: How did the prairie form?

A: A ridge of mountains formed in western North America some 65 million years ago that acted as a barrier to moist Pacific Ocean winds, but dry winds east of the mountains picked up moisture from the Mississippi River. This precipitation encouraged grasses to grow, forming the prairie. Silt deposited by glacial melt made the land fertile.

5. Food Source for a Nation

Pre-viewing question

Q: What kinds of products grow in the Midwest?

A: Corn, wheat, soybeans, cranberries, livestock, dairy; students may name others.

Post-viewing question

Q: What do the farms in the Plains states and the Corn Belt region produce?

A: The farms in the Plains states produce three-fifths of the country's wheat. Farms in the Corn Belt region produce soybeans, cattle, hogs, dairy products, and corn.

6. Farming and Ranching

Pre-viewing question

Q: What do you think would be difficult about living on a working ranch?

A: Answers will vary.

Post-viewing question

Q: What makes Wisconsin an ideal place for growing cranberries?

A: Wisconsin has sandy, acidic soil, an abundant supply of freshwater, and a cool climate.