

# U.S. Geography: The Northeast: Teacher's Guide

**Grade Level:** 5-8

**Curriculum Focus:** Geography

**Lesson Duration:** One or two class periods

## Program Description

Students tour the region whose abundant resources helped the United States become an industrial power. **Understanding Maps** – Learn the basics of interpreting physical, political, and population maps. **Natural Resources** – Study three types of resources (recyclable, renewable, and nonrenewable) in the context of the Northeastern United States: Niagara Falls, a maple sugar farm in New Hampshire, and a coal mine in Pennsylvania. **Urban Centers** – Explore Boston, New York City, and Philadelphia to learn why so many big cities lie along the eastern seaboard.

- Understanding Maps (6 min.)
  - Natural Resources (7 min.)
  - Urban Centers (8 min.)
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## Onscreen Questions

### Understanding Maps

- What different kinds of maps do you use in your everyday life? What are some important components of a map that help you to interpret the information?
- Why would physical proximity to water be important to the growth of large cities?

### Natural Resources

- What are natural resources and are they all the same?
- What are the three natural resources defined in this video, and why is it important to understand the differences as we use these resources?

### Urban Centers

- What different kinds of maps help us understand information about large cities?
  - How do city governments use information from maps to plan for meeting the peoples' needs and improving services?
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## Lesson Plan

### Student Objectives

- Use maps to learn about the natural resources of the Northeast.
- Become familiar with specific map features, including scales, keys, and compass roses.
- Create maps of the Northeast, indicating all renewable, nonrenewable, and recyclable natural resources for each state.
- Discuss the similarities and differences between the resources and geography of the Northeast states and possible reasons for these similarities and differences.

### Materials

- *U.S. Geography: The Northeast* video and VCR, or DVD and DVD player
- Colored pencils, crayons, or markers
- Pencils and rulers
- White construction paper
- Computer with Internet access (optional)
- Geography texts, encyclopedias, and library resources
- Physical, topographic, and political maps of the U.S. Northeast (or of the whole United States)

### Procedures

1. Open this lesson by discussing the Northeast region. A good way to do this is to show segments of the video *U.S. Geography: The Northeast*. Ask students: Which states are part of the U.S. Northeast? What natural resources do they provide? Make sure students understand the differences between renewable, nonrenewable, and recyclable resources.
2. Using a map of the United States or of the Northeast, discuss how mapmakers use compass roses, scales, keys, and other features to show distance, direction, and geographic placement of natural features and urban centers on maps.
3. Instruct students in making individual maps of the Northeast. Students will use construction paper and colored pencils, crayons, or markers to make maps of the Northeast. Student maps should include
  - state names and borders;
  - a key;
  - a compass rose;
  - a scale;
  - indicators for each state's renewable, nonrenewable, and recyclable natural resources;
  - indicators for major urban centers; and



- indicators for major physical features (such as rivers, lakes, or mountains).
4. Discuss ways to create map keys. Students may be creative with the symbols they use to indicate natural resources and urban centers on their maps. Discuss different ways to use scale to represent map distances.
  5. Students may use U.S. maps, maps of the Northeast, geography texts, encyclopedias, and other library resources to find their map information. Information on individual states in the Northeast can also be found on the following Web sites.
    - <http://www.50states.com/>
    - <http://www.theus50.com/>
    - <http://www.ipl.org/div/kidspace/stateknow/>
    - <http://www.netstate.com/>
  6. Once students have completed their maps, discuss the information they collected. Ask students: Which natural resources did they already know about, and which ones surprised them? What possible environmental and economic issues might certain states face because of the natural resources they supply or depend on? What differences and similarities did they notice among states in the Northeast, and what are some possible reasons for them? Finally, ask students to explain why they chose to use certain symbols in their map keys and how they determined their scales.

## Assessment

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

- **3 points:** Students actively participated in class discussions; used books and other resources wisely; created highly attractive maps that correctly include all seven criteria; correctly labeled each natural resource as renewable, nonrenewable, or recyclable.
- **2 points:** Students participated in class discussions; used books and other resources to some degree; created presentable maps that correctly included four criteria; correctly labeled some natural resources as renewable, nonrenewable, or recyclable.
- **1 point:** Students did not participate in class discussions; were unable to use resource materials without guidance; created presentable maps that correctly included two criteria; correctly labeled some natural resources as renewable, nonrenewable, or recyclable.

## Vocabulary

### compass rose

*Definition:* A circle or similar shape containing lines of direction that is printed on a map to show the orientation of the map on Earth

*Context:* On almost every map you will see a compass rose that shows the cardinal directions of north, east, south, and west.



**natural resource**

*Definition:* Any material found in the environment that is useful to humans

*Context:* Natural resources provide food, fuel, and, in some cases, delicious, fresh maple syrup..

**nonrenewable resource**

*Definition:* Minerals and fossil fuels, including coal, petroleum, and natural gas, that can be used once and cannot be replaced

*Context:* Because nonrenewable resources cannot be replaced, it is important to protect these natural resources.

**recyclable resource**

*Definition:* A natural resource that can be reused after cycling through a renewing process

*Context:* Water is a recyclable resource because it cycles through a process in the environment to renew itself.

**renewable resource**

*Definition:* A natural resource that continues to supply or replace itself

*Context:* Like other plants and animals on Earth, apples are a renewable resource.

**scale**

*Definition:* An indication of the relationship between distances on a map and corresponding actual distances

*Context:* The scale of a map tells you how the distance on the map shows the actual distance on the Earth's surface.

## *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: Understands the characteristics and uses of maps, globes, and other geographic tools and technologies; Human Systems: Understands the patterns and networks of economic interdependence on Earth's surface, Understands the patterns of human settlement and their causes
- Language Arts – Reading: Uses reading skills and strategies to understand and interpret a variety of informational texts

**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
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## 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.)

Maps can help us learn about people as well as places. Discover some of the different types of maps and how geographers use them.

### II. Natural Resources (7 min.)

Natural resources provide food and fuel. Learn about the recyclable, renewable, and nonrenewable resources found in the northeastern United States, including the vital contribution Niagara Falls makes to our water supply.

### III. Urban Centers (8 min.)

Find out what characteristics define a megalopolis while taking a peek at Boston, Philadelphia, and New York City, the three largest cities in the Northeast.

## Curriculum Units

### 1. Maps

*Pre-viewing question*

Q: What information can you get from maps?

A: Population; terrain; political boundaries; locations of cities, rivers, lakes, mountains, and deserts; weather patterns

*Post-viewing question*

Q: Why are lines of longitude also called meridians?

A: They measure the distance east and west of the Prime Meridian.

### 2. Regions of the United States

*Pre-viewing question*

Q: What are the four regions commonly used to divide the United States?

A: Northeast, Midwest, South, and West

*Post-viewing question*

Q: Why are most Northeastern cities harbors?

A: Water plays a central role in the economy of the Northeast. Many of the Northeastern cities began as transportation centers; their proximity to the Atlantic Ocean and major bodies of water helped them develop into large trade centers.

### 3. Natural Resources

*Pre-viewing question*

Q: What do natural resources provide?

A: Food and fuel

*Post-viewing question*

Q: What is Earth's most recyclable resource?

A: Water



#### 4. Renewable Resources

*Pre-viewing question*

Q: What is the difference between renewable and recyclable?

A: Renewable means that something continues to supply or renew itself naturally. Recyclable means something can be processed in order to regain materials that can be reused.

*Post-viewing question*

Q: How can farmers harvest maple syrup from the same trees year after year?

A: Because maple syrup is a renewable resource, the sap used to make the syrup replenishes itself naturally.

#### 5. Nonrenewable Resources

*Pre-viewing question*

Q: What happens when a nonrenewable resource runs out?

A: It is gone forever; it cannot be replenished, recycled, or renewed.

*Post-viewing question*

Q: What are some nonrenewable resources?

A: Coal, petroleum, and natural gas

#### 6. Life in the City

*Pre-viewing question*

Q: What is a city?

A: A large urban area where people live and work

*Post-viewing question*

Q: What is population density?

A: The average number of people in one square mile

#### 7. Cities of the Northeast

*Pre-viewing question*

Q: What makes Philadelphia historically important?

A: The Declaration of Independence and the Constitution were signed there; it was once our nation's capital; it's the home of the Liberty Bell.

*Post-viewing question*

Q: What is a bay?

A: A part of an ocean or lake that extends into land