



Atlas of the United States

3rd Edition



Included Digital Resources

This Teacher's guide includes access to a library of digital resources including online maps, worksheets and guides. It also includes a license for a free digital copy of this guide. Simply enter the link below in a browser to access all the resources.

<http://www.randmcnally.com/EDU00477>

Writer

Celeste Jones Fraser

Editors

Brett Gover
Tim Lane

Geographic Project Manager

Nina Lusterman

Geographic Content Review

Robert Argersinger

Cartography

Marzee L. Eckhoff
David Simmons

Design and Typesetting

Rand McNally Design

Internet References

The *Atlas of the United States Teacher's Guide* contains references to Internet websites that are not under Rand McNally's control. Although we have tried to choose sites which will be helpful to you, we are not responsible for the quality, safety, completeness, accuracy, or nature of the content or advertising of such sites; and we cannot guarantee that such content or advertising will not change without our knowledge. We provide these Internet references simply as a convenience to you. This provision should not be regarded as an endorsement by us of these websites, the advertising that may appear on them, or the companies that own and/or maintain them.

Copyright © 2014 by Rand McNally
2016 Printing

All rights reserved. Permission is granted to reproduce student worksheet pages and outline maps for limited classroom use only. No other part of this work may be reproduced or transmitted in any form or by any means electronic or mechanical, including photocopying and recording, or by any information storage or retrieval system, except by permission of the publisher.

Printed in the United States of America

Rand McNally
9855 Woods Drive
Skokie, Illinois 60077

ISBN 0-528-00480-8
ISBN-13: 978-0-528-00480-3

2 3 4 CR 18 17 16

For information about ordering the *Atlas of the United States* or the *Atlas of the United States Teacher's Guide*, please call 1-800-333-0136 or visit our website at www.randmcnally.com/education.

Table of Contents

INTRODUCTION 5

THE DISCOVERER'S TOOLS

Lesson 1: Exploring Different Perspectives	9
Lesson 2: From Model to Map	11
Lesson 3: An Orange as the Earth	13
Lesson 4: Fixed Points on the Compass	15
Lesson 5: Grid Games	17
Lesson 6: Hemispheres as References	19
Lesson 7: Classroom Maps and Bar Scales	21
Lesson 8: Choosing the Best Map	23
Lesson 9: Identifying Features on a Map	25

THE WORLD

Lesson 10: Researching the World's Extremes	27
Lesson 11: World Geography Bowl	29
Lesson 12: Mountain Climbing, River Rafting	31
Lesson 13: World Weather Reports	33
Lesson 14: Creating Environment Posters	35
Lesson 15: City Search for Stolen Treasure	37

THE UNITED STATES

Lesson 16: Extreme Perspectives	39
Lesson 17: Touring the Country by Alphabet	41
Lesson 18: Checking the Borders	43
Lesson 19: Plate Movement Demo	45
Lesson 20: Choices in Different Climates	47
Lesson 21: A Dictionary of Environment Terms	49
Lesson 22: Population Density Guessing Game	51
Lesson 23: Time Zone Rebus Stories	53

REGIONS OF THE UNITED STATES

Lesson 24: Determining Regions	55
Lesson 25: Map Challenge	57
Lesson 26: Advertising the Northeast	59
Lesson 27: Measuring Distances	61
Lesson 28: Making a Model	63
Lesson 29: Travel Report	65
Lesson 30: Planning a Trip	67
Lesson 31: Orienteering Through the Midwest	69
Lesson 32: Landform Formations	71
Lesson 33: Planning a Route	73
Lesson 34: Earth Systems Role Play	75
Lesson 35: "20 Questions" Game	77

Lesson 36: "Where Are You Now?" Questions	79
Lesson 37: Understanding Population Density	81
Lesson 38: Museum of the Southwest	83
Lesson 39: Travel Agents of the Northwest	85
Lesson 40: Rain Shadow Role Play	87
Lesson 41: Come Visit Alaska	89
Lesson 42: Picturing Hawaii	91

SETTLEMENT OF THE UNITED STATES

Lesson 43: Radio Announcements from History	93
Lesson 44: Stories of the First People	95
Lesson 45: Government Leaders	97
Lesson 46: Looking Back in Time	99
Lesson 47: A Country of Immigrants	101

OUTLINE MAPS

Globe Outline Map Centered on the Prime Meridian	105
The Four Hemispheres Outline Map	107
World Outline Map with Country Boundaries	109
World Outline Map without Country Boundaries	111
Pacific Rim Outline Map	113
North America Outline Map with Country Boundaries	115
North America Outline Map without Country Boundaries	117
United States Outline Map with State Names	119
United States Outline Map without State Names	121
United States "Swing 50" Outline Map	123
United States Outline Map without State Boundaries	125
Northeast Region Outline Map	127
Mid-Atlantic Region Outline Map	129
Southeast Region Outline Map	131
Midwest Region Outline Map	133
North Central Region Outline Map	135
South Central Region Outline Map	137
Southwest Region Outline Map	139
Northwest Region Outline Map	141
Alaska Outline Map	143
Hawaii Outline Map	145
The Thirteen Colonies Outline Map	147





INTRODUCTION

THE ATLAS

The Rand McNally *Atlas of the United States* is more than an ordinary atlas. This reference book provides students with an opportunity to go beyond referencing. Students are invited to make discoveries, to analyze, and to see the world and their country in a new way.

Three unique features in this atlas support integrated content and critical thinking skills development.

- **“Swing 50” Maps:** The Atlas of the United States includes maps in which Alaska and Hawaii are shown in their proper sizes and locations. Students will get a real feel for the expanse of our country, without having to look at insets of Alaska and Hawaii and imagine them elsewhere.
- **Time to Explore:** Throughout the atlas we have included Time to Explore sidebars, which call on students to use critical thinking skills to anchor their understanding of map content.
- **Science and Geography:** These features are included in the section “Regions of the United States.” They are designed to go beyond basic map reading to help students understand the reasons behind our country’s geography, such as why a predominant number of tornadoes form in the area known as “Tornado Alley.”

THE TEACHER’S GUIDE

This teacher’s guide serves as a step-by-step resource for making map reading an active and engaging experience. For example, students may play games such as “World Geography Bowl” to build their mental maps of the world or role-play geographic concepts such as the earth-sun relationship. The hands-on activities are designed to excite students as they build skills and increase their knowledge of our country and our world.

Organization of the Teacher’s Guide

This teacher’s guide provides at least one lesson and one student worksheet for each topic in the atlas. In some cases, such as in the section “Regions of the United States,” additional lessons are provided because regions are often the emphasized course of study in the upper elementary grades.

Features of the Teacher’s Guide

- 47 lessons
- 47 student worksheets
- 22 outline maps

LESSON STRUCTURE

Each lesson includes the following sections:

Overview

The overview provides a summary of each lesson's content and the student activity.

Objectives Correlated to National Geography Standards

The objectives for all lessons are correlated to one or more of the 18 National Geography Standards that apply.

Curriculum Connections

Because geography is an interdisciplinary subject, this section contains learning objectives in other disciplines that may be reinforced in the lessons, such as calculating distances in math.

Introducing the Lesson

Think of these as “interest-piquers” or “scene-setters.” They are designed to provide a connection between the atlas pages and the activities in the lessons and provide a focus to students as they proceed.

Developing the Lesson

Like a cookbook recipe, this step-by-step approach will help teachers teach the lessons with ease.

Assessing the Lesson

Performance assessment activities require students to generate rather than choose a response. Students are asked to accomplish a task, which will demonstrate their mastery of pertinent knowledge and skills.

Answers

Answers to student worksheets are included, as are answers to Time to Explore features.

STUDENT WORKSHEETS

These reproducible pages are designed to be completed independently. To test mastery of content across Bloom's Taxonomy, these worksheets center around three types of questioning strategies:

- **Knowledge:** The first few questions on each worksheet ask for students to simply recall and report what they have learned.
- **Comprehension and Application:** Every worksheet includes an activity in which students must apply what they have learned. These are varied activities to capitalize on the multiple intelligences. Students may be asked to create graphs depicting geographic content, draw maps, or write advertisements.
- **Analysis, Synthesis, and Evaluation:** A critical-thinking question concludes each worksheet. These ask students to go beyond what they have observed in order to make sense of some aspect of their world.

CROSS-CURRICULAR ACTIVITIES

This chart correlates the 47 lessons to six other areas of curriculum.

SUBJECTS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47			
Math	•	•	•		•	•	•	•								•						•	•	•			•	•	•	•	•	•	•												•					
Science				•								•	•				•		•	•	•							•		•	•	•									•	•	•							
Language Arts						•		•	•	•				•	•							•	•	•				•	•						•	•	•	•				•	•	•						
Art							•	•							•								•																			•	•	•	•					
Drama											•	•															•																							
History																			•								•																							

CRITICAL THINKING

This chart correlates the 47 lessons to nine critical-thinking skills.

SKILLS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47								
Analyzing						•	•													•	•				•	•		•	•	•											•	•		•											
Comparing & Contrasting	•							•		•																	•																												
Predicting & Checking	•												•		•									•																															
Seeing Similarities & Differences	•	•							•				•									•	•			•																													
Classifying					•					•	•	•		•					•		•	•			•																														
Identifying Problems & Solutions	•									•							•							•			•		•		•																					•	•		
Hypothesizing																	•				•																																		
Synthesizing							•					•		•						•		•																																	
Drawing Conclusions							•													•		•			•																														

NATIONAL GEOGRAPHY STANDARDS

This chart correlates the 47 lessons to the 18 National Geography Standards.

STAN-DARDS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47												
1	•	•	•		•	•	•	•									•								•																																		
2				•							•							•																																									
3																																																											
4									•							•					•	•			•		•		•		•																												
5																																																											
6		•																																																									
7												•	•	•							•	•																																					
8																																																											
9																																																											
10																																																											
11																																																											
12																																																											
13																																																											
14																																																											
15																																																											
16																																																											
17																																																											
18																																																											

USING OUTLINE MAPS

As teachers, you know that sometimes “less is more.” Rand McNally’s blank outline maps fit this description. Much of the detail has been omitted so that students can fill in geographic information, both physical and human. In doing so, students will build mental maps of their country and their world.

Twenty-two outline maps are included at the back of this teacher’s guide. Take a look at the suggested activity ideas that accompany them. The maps can be used in a myriad of different ways to link with your curriculum and state and national standards.

NOTEWORTHY WEBSITES

Students may be interested in researching various topics on the following websites:

General Information

www.infoplease.com

Provides information about a multitude of topics. Adding “/states” after the address will provide state trivia as well as interesting state comparisons.

Information About the 50 States

www.50states.com

Provides information about the 50 states, as well as state trivia, such as the state birds, flags, flowers, etc.

Earth Science

www.geography4kids.com

Includes scientific information about physical geography, such as climates, plate tectonics, the atmosphere, etc.

Physical Geography of the United States

www.usgs.gov

The U.S. Geological Survey provides extensive resources and data by state or topic.

U.S. History

www.ushistory.com

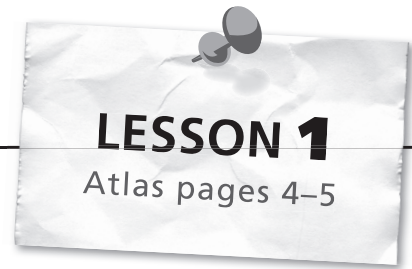
Includes music and stories related to events in U.S. history

Weather of the United States

www.nws.noaa.gov

The National Weather Service offers weather maps for students to track weather systems and compare climate data for various states.

Exploring Different Perspectives



Overview

Students will look at their own classroom from different perspectives to understand why maps, graphs, photos, tables, and diagrams are all used to understand a place.

Objectives Correlated to National Geography Standards

Students will learn:

- That maps and other geographic representations, tools, and technologies can be used to acquire, process, and report information from a spatial perspective (Standard 1)

Curriculum Connections

Math: Reading graphs, tables, and diagrams

Introducing the Lesson

Ask the class to think about how they would convey information about their classroom to someone from a different school. Invite all kinds of ideas, in order to illustrate that a single photo or map of your classroom doesn't tell the whole story.

Developing the Lesson

1. With the students' help, make a list on the chalkboard of all the different tools you could use to convey information about your classroom. The list could include such things as photos, maps, illustrations, graphs and tables (showing numbers of boys and girls), etc.
2. Choose the best 5 to 10 ideas and divide the class into that many groups.
3. Have each group develop one of those perspectives of your classroom. For example, the group focusing on classroom photos could write captions that explain what the viewer is seeing in each.
4. When the groups have finished their projects, display the finished products. Ask the students if the visitor from another school would be able to get the correct impression of your classroom from studying all of the visuals.
5. Turn the students' attention to the visuals on pages 4–5 of the atlas. Point out that the atlas includes many different tools for examining places, both in our country and in our world.

Assessing the Lesson

On the board, write the names of all the tools the students created to depict their classroom (map, photo, etc.). Under each name, have students list the uses. For example, under Map, students might suggest that a map would be helpful for substitute teachers. Guide the students in summarizing the usefulness of all the different perspectives.

Materials Needed

- Visual tools (atlas pages 4–5)

WORKSHEET ANSWERS

1. The table or the diagram
2. The map
3. The map
4. The photo
5. The diagram
6. Check students' graphs for accuracy.

Thinking Critically:

The ship's captain might use the table and the diagram to find out the depth of Lake Michigan, but would need another map showing the depths of the lake at different points, so the ship would not run aground.

TIME TO EXPLORE ANSWER

Students could refer to such facts as the relative locations of the lakes, their depths, and their sizes.

Name: _____



Different Tools, Different Information

Use the visual "tools" on atlas pages 4–5 to answer the following questions.

1. Which of the visual tools would you use to find out which Great Lake is the deepest?

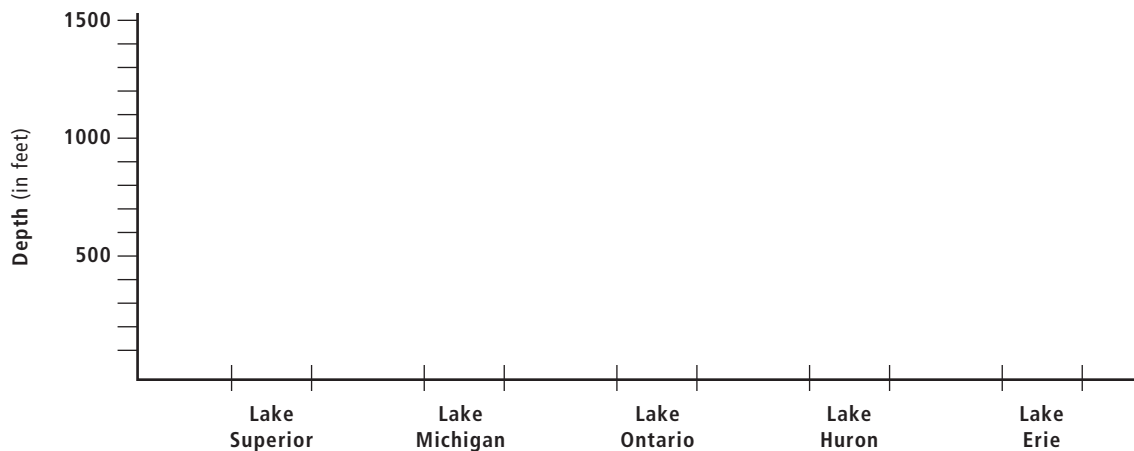
2. Which visual tool tells you what states border the Great Lakes?

3. Which visual tool shows you where the border of Canada is located?

4. Which is the best visual tool for showing you whether there are beaches on the Great Lakes?

5. Which visual tool shows you the differences in the lakes' elevation?

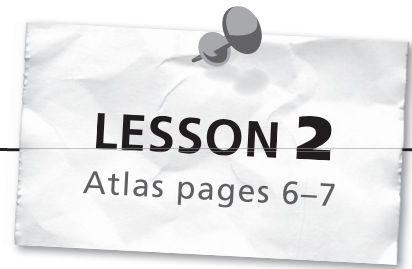
6. Fill in the bar graph below to illustrate the greatest depth of each of the five Great Lakes.



Thinking Critically

Would any of these visual tools be helpful to a ship captain whose ship was entering Lake Michigan? Explain.

From Model to Map



Overview

In order to understand how globes and maps relate, students will make models and draw illustrations from an overhead perspective.

Objectives Correlated to National Geography Standards

Students will learn:

- That maps and globes are geographic tools used to acquire and report information (Standard 1)

Curriculum Connection

Math: Sequencing from real things to models to maps

Introducing the Lesson

Display a globe and various kinds of maps, including world maps and maps of part of the earth, such as a country, state, or city. Engage the class in a discussion about what the maps show and how they differ. Guide them to recognize that globes are the most accurate way of representing the earth, because they are round like the earth.

Developing the Lesson

1. Bring several toys, such as cars or doll furniture, to display in the classroom. Blocks will work if toys are unavailable.
2. Display the car (or whatever item is available) and discuss it as a model of a real car. Ask students to consider other models that stand for real things.
3. Place the car on the floor. Have students take turns looking at the car from above, then draw pictures of what it looks like from that angle. Make sure they do not draw a picture of the car from the side, but from the top. Tell them they are looking at the object from an overhead perspective.
4. Focus students' attention on the globe and maps. Have them compare places depicted on the maps to the same places on the globe. Have them compare coastlines, so they can see the relationship. Hold the globe down so that the class can see that the map is an overhead perspective of a specific area on Earth.
5. Point out that some maps show the whole world and some show just a small part of the world. Globes always show the whole earth. They do not include close-up perspectives of places, like maps of cities.

Assessing the Lesson

Play a quick game to judge students' mastery of the concepts. Hold up one of the maps and have students declare whether it shows the whole earth or part of the earth. Repeat the activity with all the other maps. Then ask students to write definitions for globe (a model of the earth) and map (a drawing of a place from an overhead perspective).

Materials Needed

- A globe
- Classroom wall maps, such as country, state, or city maps
- Small toys such as toy cars, doll furniture, or blocks

WORKSHEET ANSWERS

1. c
2. d
3. d
4. b
5. Accept all reasonable answers.

Thinking Critically:

Students should realize that globes show the whole world in the most accurate way. It is not possible to show the whole world accurately on a flat piece of paper.

TIME TO EXPLORE ANSWER

Roughly 24,000 miles

Identifying the Best Tools

Use the maps on atlas pages 6–7 to answer the following questions. Write the correct answer for each multiple-choice question in the space provided.

1. If you wanted to see where Hawaii was located in relation to the South Pole, would you use: (a) a world map, (b) a map of Antarctica, (c) a globe, or (d) a map of Hawaii? _____
2. If you needed to find a street in New York City, would you use: (a) a world map, (b) a globe, (c) a map of New York state, or (d) a map of New York City? _____
3. If you wanted to see what countries surround Germany, would you use: (a) a globe, (b) a map of Europe, (c) a world map, or (d) any of the above? _____
4. If you wanted to plan a driving trip from Colorado to California, would you use: (a) a globe, (b) a road map of the United States, (c) a world map, or (d) a map of North America? _____
5. Look at the photo of the globe below. Use the lines below to list the things you **can** use a globe for and the things you **cannot** use a globe for.



A globe **can** be used for:

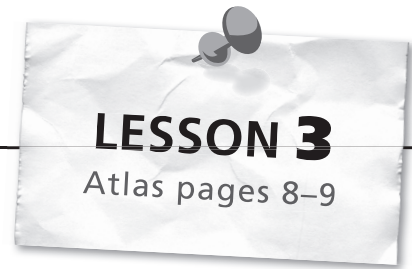
A globe **cannot** be used for:



Thinking Critically

Since a world map shows the whole world, why do people need globes?

An Orange as the Earth



Overview

Students will use an orange to test the difficulty of making a flat map of the round earth.

Objectives Correlated to National Geography Standards

Students will learn:

- That flat maps are inaccurate representations of the earth's surface (Standard 1)
- That maps sometimes emphasize people's perceptions of places (Standard 6)

Curriculum Connections

Math: Making geometric comparisons

Introducing the Lesson

Place an orange on a table in your classroom. Ask the class how an orange is like the earth (both are round). Tell them that when people make maps, their challenge is to take all the information on the round earth and translate it to a flat piece of paper. Inform them that today they will face the same challenge.

Developing the Lesson

1. If possible, provide several oranges for the class to use in this activity. (Paper towels will also be needed.)
2. Challenge groups of students to peel their oranges, trying to keep the entire peel intact.
3. When they have their peels off, they should notice that the peels do not lie flat. Ask them to try various ways to flatten the peels. After the students have tried various approaches, invite them to summarize their experiences.
4. Students should realize that in order to flatten their peels, they had to tear them in various places.
5. Now ask them to consider how to make their flattened peels into a rectangle. Students should realize that to do so, they would have to stretch parts of the peel in order to make them connect and form a rectangle.
6. Tell the class that these challenges are what mapmakers face in making flat maps of the round earth.

Assessing the Lesson

Have the class write paragraphs answering the following question: Are all maps distorted? Instruct them to include their reasoning in their answers.

Materials Needed

- Several oranges
- Paper towels

WORKSHEET ANSWERS

1. The Robinson Projection
2. Places at the Equator are shown similarly on maps and globes because there is less distortion at the center.
3. Greenland appears much larger on the Mercator Projection than on the Robinson Projection.
4. A map projection is a means of representing the round earth on a flat surface.
5. Students should realize that people's perceptions sometimes alter their views of how to represent the round earth on a flat map. Australian mapmakers often put the Pacific Ocean in the center of world maps.

Thinking Critically:

In general, students should realize that parts of the earth must be stretched in order to be shown on a flat map. On most maps, size distortion is greatest in the earth's southernmost and northernmost regions. Since Antarctica is located in the earth's southernmost region, it is usually more distorted in size than the United States.

TIME TO EXPLORE ANSWER

They all show the world, but some distort size and others distort shape. The land areas in the far north and far south are the most distorted.

Name: _____

The Mapmaker's Point of View



WORKSHEET 3

Use the maps on atlas pages 8–9 to answer the questions below.

1. Which projection shows the size of Alaska more accurately: the Mercator Projection or the Robinson Projection? _____
2. Compare the land areas at the Equator on the maps and globe. How do they compare in size and shape? _____

3. Compare Greenland on the Robinson and Mercator Projections. How does it differ from one projection to the other? _____

4. What is a map projection? _____

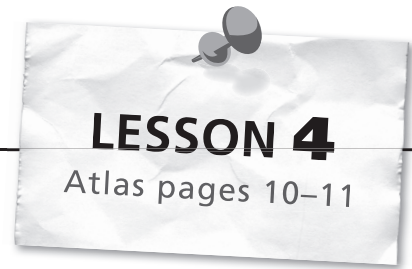
5. In the United States, when we create world maps, we usually put the Atlantic Ocean in the center and split the Pacific Ocean in half. If you were a mapmaker in Australia, how might you draw a map of the world? What part of the earth would be the center of your map? Use the space below to illustrate your perspective.



Thinking Critically

Why is Antarctica more distorted in size than the United States on most world maps?

Fixed Points on the Compass



Overview

Students will play a game in order to reinforce the fixed points on a compass rose.

Objectives Correlated to National Geography Standards

Students will learn:

- That directions, in relation to one another, never change and should become part of people's mental maps (Standard 2)

Curriculum Connections

Science: Learning about magnetic north

Introducing the Lesson

Ask the class to consider how people move about in the world. Guide them in realizing that knowing and using directions are critical tools. Ask the students to consider whether north and south are always opposite one another—on the earth and on maps.

Developing the Lesson

1. Tell the class that the direction north always refers to the North Pole on the earth.
2. To demonstrate that north is a fixed point on the earth, provide a compass for the class to use. Show students how to turn the compass so that when facing north, the needle aligns with the symbol for north. The compass will point to the magnetic North Pole, not the exact geographic North Pole.
3. Explain the earth's magnetic pole. A massive magnetic field surrounds the earth, which makes the earth behave like a giant magnet. The magnetic field converges at the North and South Poles. Consequently, the magnetic needle in a compass always aligns with the direction North.
4. Point out that all the other directions are always the same relative to North.
5. Use a lightweight ball, bean bag, or wad of paper to get students involved in practicing cardinal and intermediate directions.
 - Display signs around the classroom that read, North, South, East, and West, making sure that north aligns with magnetic north on the compass.
 - Choose eight students to represent the eight cardinal and intermediate directions, then position the students in the appropriate locations around the room.
 - Call out directions such as "Northeast, throw to the Southwest" and instruct students to throw the ball to the correct points. When the eight students have all had turns, invite eight more students to repeat the activity.

Assessing the Lesson

Without looking at any map, have students draw a compass rose with all eight cardinal and intermediate directions in place. Make sure they realize that these directions never change in relation to each other.

LESSON 4

Atlas pages 10-11

Materials Needed

- A compass
- A lightweight object, such as a ball, bean bag, or wad of paper towel

WORKSHEET ANSWERS

1. South
2. West
3. Northeast
4. North
5. North
6. Check students' maps for accuracy.

Thinking Critically:

Left and right are only the same as west and east when facing north. Otherwise they are not related. Up and down are entirely different concepts than north and south.

TIME TO EXPLORE ANSWER

South

Name: _____

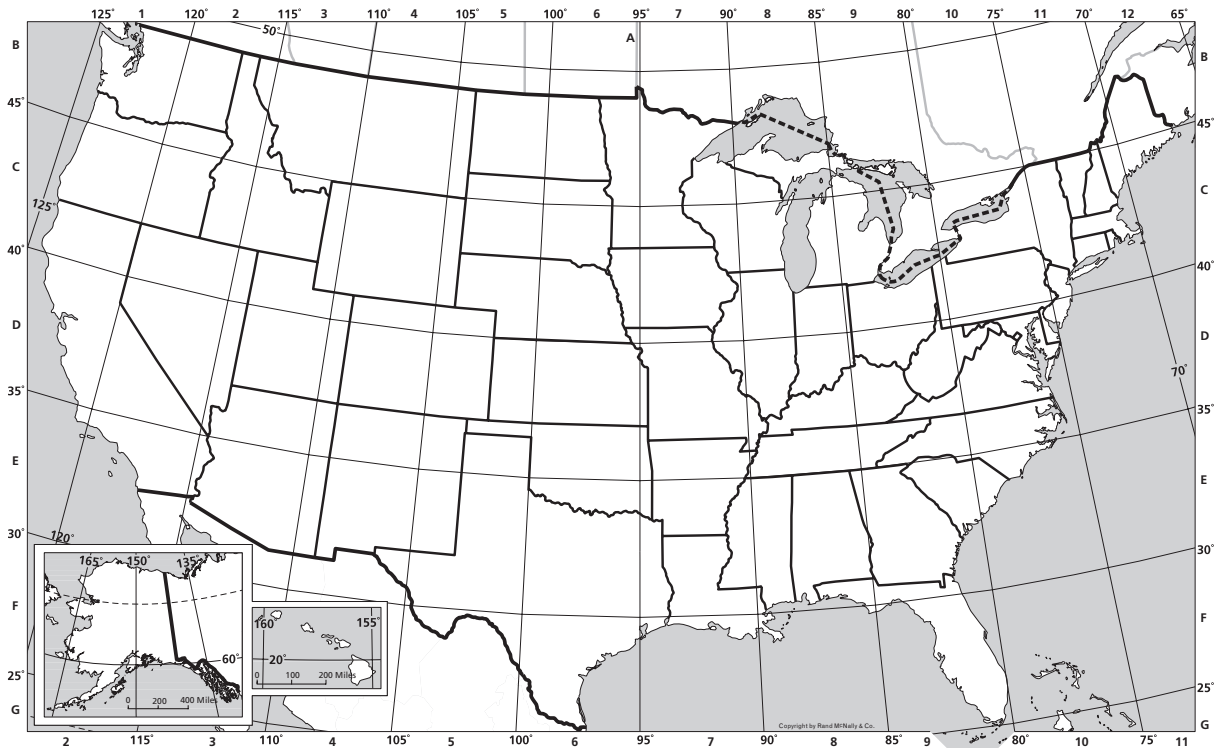


Orienting Yourself on the Earth

WORKSHEET 4

Use the map and globes on atlas pages 10–11 and the globe below to answer the questions that follow.

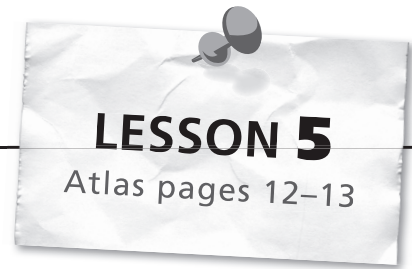
1. What direction is always opposite north? _____
2. East is opposite of what direction? _____
3. What direction is opposite southwest? _____
4. If you are standing at the South Pole and you walk away from it, in which direction are you heading? _____
5. What direction is usually at the top of all maps? _____
6. Look at the map below. The mapmaker has left off the compass rose. Add it to the map, so that map readers can get their bearings.



Thinking Critically

Are left and right the same as east and west? Explain. What about up and down and north and south?

Grid Games



Overview

Students will play two games in order to reinforce their understanding of the two kinds of grid systems.

Objectives Correlated to National Geography Standards

Students will learn:

- That grids can be used to report information about the earth from a spatial perspective (Standard 1)

Curriculum Connections

Math: Using grids

Introducing the Lesson

Ask students to consider why people might have invented grid systems to use on maps. Guide them in understanding that grids help people find places in different locations.

Developing the Lesson

1. Review the material on atlas pages 12–13. To make sure students have mastered the concepts, play the following games.
2. Draw or tape a grid down on the hallway, gym, or playground surface. There should be at least 10 lines in each direction, crisscrossing. Assign one side of the grid as NORTH and label it.
3. Tell the class that they are going to become part of a letter-number grid. Number the spaces across the top (which represents North) and label the spaces A, B, C, D, etc. from top to bottom along the left side.
4. Take turns giving students various directions, such as “Hop to D-4” or “Walk from A-1 to E-2.” After everyone has had a turn in this version of the game, erase the numbers and letters.
5. Leave the NORTH label in place. Label the center horizontal line zero to represent the Equator. Depending on the number of lines, label them in increments of tens or twenties, with numbers getting bigger away from the Equator. Assign one north-south line to represent the Prime Meridian, and label the others outward from that line in increments of tens or twenties.
6. Get students involved in another activity in which you call out coordinates and they go to the locations on the grid (for example, 20 degrees north latitude by 80 degrees west longitude). Continue play until players have mastered the global grid.

Assessing the Lesson

Repeat the games described above as Bingo, as Hopscotch, or as a Scavenger Hunt in which clues lead students from one grid location to another.

WORKSHEET ANSWERS

1. Lines are used to form the grid.
2. Latitude lines are parallel to each other and run east and west. They are used to measure distance north and south of the Equator. Longitude lines intersect at the two Poles. They are used to measure distances east and west of the Prime Meridian.
3. Australia
4. C-5
5. 90 degrees north latitude
6. Check students' sketches for accuracy.

Thinking Critically:

Latitude and longitude can be used on any map or globe, but a letter-number grid can only be used on a flat map. The letter-number grid would not work on a globe because there would be no “side” or “top.”

TIME TO EXPLORE ANSWER

- A-4 Aberdeen
 - B-5 Watertown
 - C-1 Rapid City
 - C-5 Brookings
- Vermillion is located at E-5.

Name: _____



Using Grid Systems

Use the maps and globes on pages 12–13 to answer the following questions.

1. What do latitude-longitude grids and letter-number grids have in common? _____

2. What is the difference between latitude and longitude? _____

3. Look at the world map on page 12. If you were standing at 30 degrees south latitude, 135 degrees east longitude, what continent would you be on? _____
4. Looking at the map at the bottom of page 13, what is the letter-number location of Brookings, South Dakota? _____
5. What is the latitude of the North Pole? _____
6. In the space below, draw a circle to represent a globe. Add a global grid system. Label the Poles, the Equator, and the Prime Meridian and number the lines that are included. Include labels to show which lines are latitude and which ones are longitude.



Thinking Critically

Can latitude and longitude be used on any map or globe? Can a letter-number grid be used on any map or globe? Explain.

Hemispheres as References



Overview

Students will examine several kinds of maps and identify the hemispheres of selected places to use in planning a trip.

Objectives Correlated to National Geography Standards

Students will learn:

- That grids and hemispheres can be used to report information about the earth from a spatial perspective (Standard 1)

Curriculum Connections

Math: Using grids

Language Arts: Alphabetizing

Introducing the Lesson

Tell the class that the creation of a global grid gave us a way of referring to certain parts of the earth. Inform them that these references are frequently used to describe locations around the world.

Developing the Lesson

1. Review the differences between the hemispheres in relation to the Poles, the Equator, and the Prime Meridian.
2. Depending on the number of students in your class, break them into four or eight groups. Assign each group one of the four hemispheres.
3. Tell the students that their job is to plan a trip in their hemisphere. They may need to refer to various political maps in your classroom in order to familiarize themselves with the countries in those hemispheres.
4. Their trips should take them through countries in those hemispheres in alphabetical order.
5. Once they have planned their trips, invite the groups to describe their routes. Encourage them to describe their relative locations—whether they are south or north of the Equator, etc.

Assessing the Lesson

Play a game with the class to test their mastery of hemispheres. Give them clues, such as “North of the Equator” and let them call out answers, such as “Northern Hemisphere.” Refer to continents as well to help build their mental maps.

WORKSHEET ANSWERS

1. The Western Hemisphere
2. The Northern Hemisphere and the Southern Hemisphere
3. The Prime Meridian
4. The Prime Meridian
5. Australia and Antarctica
6. Check students' maps for accuracy

Thinking Critically:

It is possible for a continent to be located in more than two hemispheres. Africa is located in all four hemispheres.

TIME TO EXPLORE ANSWER

No, places are always located in at least two hemispheres. They are either in the Northern or Southern Hemisphere as well as the Eastern or Western Hemisphere.

Name: _____



Putting the World in Order

WORKSHEET 6

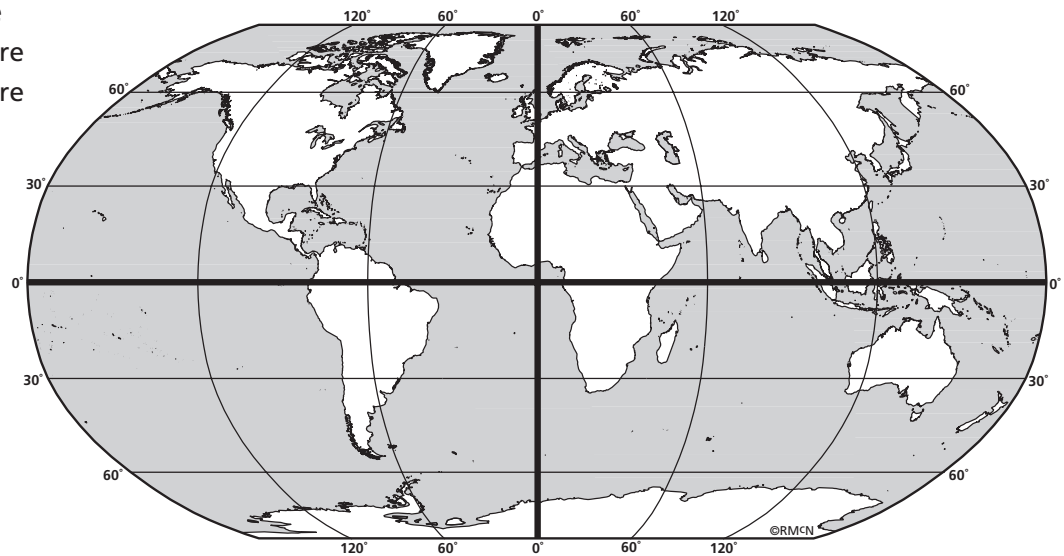
Use the visuals on atlas pages 14–15 to answer the questions below.

1. What hemisphere is west of the Prime Meridian? _____
2. The Equator divides the earth into what two hemispheres? _____

3. Locate the 180th meridian in the Pacific Ocean. What is the same line called on the other side of the globe? _____
4. Which is a line of longitude—the Equator or the Prime Meridian? _____
5. What continents are located completely in the Southern Hemisphere? _____

6. Study the world map below. Label the following features on the map.

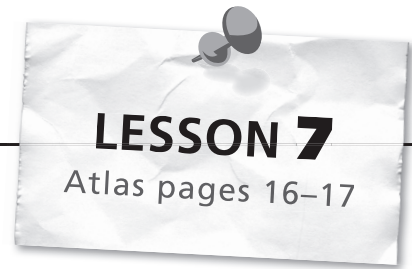
- Equator
- Prime Meridian
- Western Hemisphere
- Eastern Hemisphere
- Southern Hemisphere
- Northern Hemisphere
- North America
- South America
- Europe
- Asia
- Africa
- Australia
- Antarctica



Thinking Critically

Is it possible for a continent to be located in more than two hemispheres?
Explain and provide one or more examples.

Classroom Maps and Bar Scales



Overview

Students will participate in making a scale drawing of their classroom.

Objectives Correlated to National Geography Standards

Students will learn:

- That scale describes the relationship between the distances on a map and distances on the earth's surface (Standard 1)

Curriculum Connections

Math: Using scale

Math: Measuring distances

Introducing the Lesson

Direct students' attention to the bar scales on various maps in this atlas. Discuss why we need to know the scale of a map. Students should realize that the scale tells us the distances represented on land.

Developing the Lesson

1. Get sheets of butcher paper or tape pages of newsprint together.
2. Tell the class that they are going to make maps of their classroom. Using yardsticks or rulers, have students measure the length and width of the room and record it on the board.
3. Choose one reference point in the room, for example, a window, door, or clock. Students should make sure that point is at the top of their maps.
4. Have students work in small groups and create maps of the classroom. The scale of their maps should be: 1 inch equals 1 foot.
5. Once their maps are drawn, ask if it would have been possible to make a map of their classroom that was the same size as the classroom. Point out that this is the problem mapmakers face when they show distances of the earth on maps.

Assessing the Lesson

Look at various maps in the atlas and have students examine their scales. Using rulers, ask them to figure out equivalents. For example, how many miles does one inch represent? Ask questions, such as "If one inch on the map equals 100 miles, how many miles would two inches represent?"

WORKSHEET ANSWERS

1. Map A: One inch represents about 30 miles; Map B: One inch represents about 4 miles; Map C: One inch represents about ½ mile.
2. Map A
3. About 1 mile
4. About 100 miles
5. About 150 miles
6. 75 miles

Thinking Critically:

You would need to know the size of the island so that you would know how much space there was for your building.

TIME TO EXPLORE ANSWER

Map C

Name: _____



Measuring Distances

Use the visuals on atlas pages 16–17 and 73 to answer the questions below.

1. What are the scales of the three maps showing San Francisco on page 17?

2. Which map shows San Francisco from farthest away in space? _____
3. Using Map B and a ruler, estimate how long the Golden Gate Bridge is.
Measure from coast to coast. _____
4. Measure the bar scale of the map on page 73. How many miles does one inch stand for? _____
5. On the map on page 73, find the distance from Indianapolis, Indiana, to Columbus, Ohio.

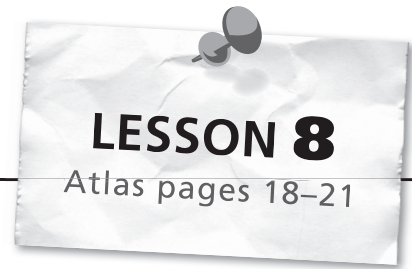
6. On the map on page 73, find the distance from Madison, Wisconsin to Milwaukee, Wisconsin. _____



Thinking Critically

Consider a map of a small island—without a bar scale. If you wanted to build something on the island, why would it be important to know the scale?

Choosing the Best Map



Overview

Students will examine different kinds of maps and determine the best map for particular purposes.

Objectives Correlated to National Geography Standards

Students will learn:

- How to use maps to process and report information from a spatial perspective (Standard 1)

Curriculum Connections

Math: Constructing graphs

Math: Understanding averages

Introducing the Lesson

Ask the class to consider what might happen if we wanted a map to show everything that appears in a certain place—all its physical and human features, such as mountains, rivers, highways, towns, and cities. Guide them into realizing that the map would become so crowded that it would be meaningless and unreadable.

Developing the Lesson

1. Have the students examine the maps on atlas pages 18–21 and discuss their uses.
2. Present the class with the following scenarios and ask them to name the kind of map that would best solve the particular need and explain their reasoning. Tell them that in some cases, they would need more than one map.
 - You want to find out where downhill skiing takes place. (physical map + climate map)
 - You want to plan a vacation in a place with warm weather outside the United States. (political map + climate map)
 - You want to visit a farming area where cotton is grown. (economies map)
 - You want to find work in forestry. (economies map or environments map)
 - You are trying to figure out where to set up a shoe store where you will have lots of customers. (population density map or environments map)
 - You want to find out the average number of people in a desert region. (environments map + population density map)
 - You want to find out what the climate is like in a desert region. (environments map + climate map)
 - You want to take photos of mountains. (physical map)
 - You want to visit a capital city. (political map)

Assessing the Lesson

After discussing the activity above, divide the class into six groups. Assign each group one of the maps on atlas pages 18–21. Have each group make a list of possible uses for the kind of map they were assigned.

Materials Needed

- Maps on atlas pages 18–21

WORKSHEET ANSWERS

1. Elevation, the height of the land above sea level, as well as labels for features made by nature, such as mountain ranges, plains, and rivers.
2. The number of people per square mile, or areas that have lots of people compared with those that have few.
3. An environments map shows what type of land is found in different areas. An economies map shows how people make a living in different areas.
4. Political units: countries, states, counties, cities, or provinces.
5. Areas where cattle and/or dairy cows are raised.
6. Check students' climate graphs for accuracy.

Thinking Critically:

Averages tell you the temperatures and precipitations that are the most common per month. Showing extremes would not give you a clear picture of what the weather and climate are really like year after year.

TIME TO EXPLORE ANSWER

(page 19) A physical map
(page 20) You could learn how climates and environments are interrelated. For example, dry climates often correspond to desert areas or grasslands and grazing land. Similarly, areas with tropical climates are often covered with forest.



Creating a Climate Graph

WORKSHEET 8

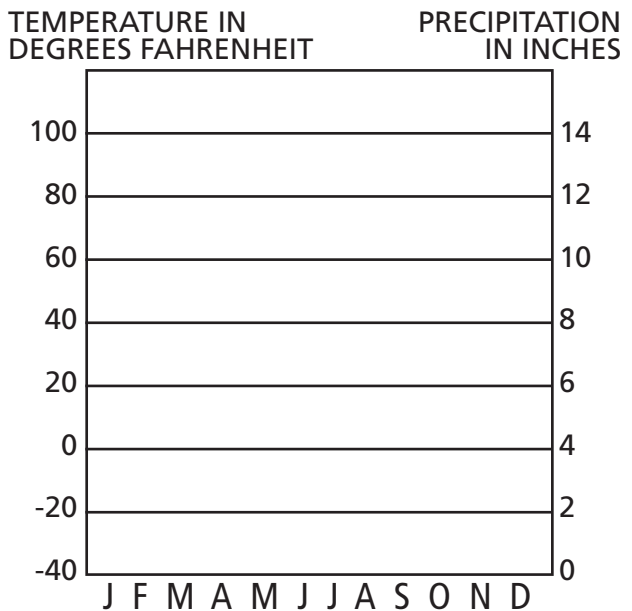
Use the maps and graphs on atlas pages 18–21 to answer the questions below.

1. What does a physical map show? _____
2. What does a population density map show? _____
3. What is the difference between an environments map and an economies map?

4. Name the things that a political map shows. _____
5. According to the legend for the Economies Map, what economic activity does a cow represent? _____
6. Look at the climate graph on atlas page 20. Use the data provided to create a climate graph for St. Louis, Missouri, in the space below. For the temperatures, use a colored pencil to mark the average temperature for each month, then connect the marks to create a line graph. Color in the area below the marks to show the variations in temperature. For precipitation, use a pencil or black marker to draw bars showing precipitation for each month.

Temperature and precipitation data for St. Louis, Missouri

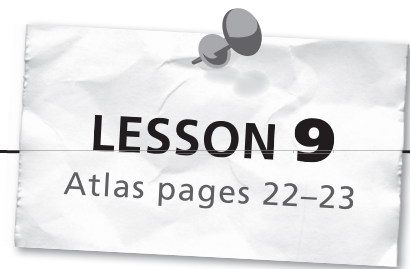
Month	Average temperature	Average precipitation
January	30°F	2 inches
February	35°F	2 inches
March	46°F	4 inches
April	57°F	4 inches
May	66°F	4 inches
June	76°F	4 inches
July	80°F	4 inches
August	78°F	3 inches
September	70°F	3 inches
October	58°F	3 inches
November	45°F	4 inches
December	34°F	3 inches



Thinking Critically

How does understanding averages help you understand a climate graph?

Identifying Features on a Map



Overview

Students will categorize map features and create map keys to explain them.

Objectives Correlated to National Geography Standards

Students will learn:

- How to use maps to process and report information from a spatial perspective (Standard 1)

Curriculum Connections

Language Arts: Classifying features

Language Arts: Writing definitions

Art: Inventing and drawing symbols

Introducing the Lesson

Show the class several different kinds of maps. Have them use a sheet of paper to cover up the map legends. Ask the class to judge how well they could interpret the maps without map legends. Guide them in realizing that map legends are essential for unlocking the information on maps.

Developing the Lesson

1. Write the following headings on the board: Physical Features, Cultural Features. Involve the students in making a list of things that could appear on maps under each of those categories. Write these on the board as students name them.
2. Once extensive lists have been created, invite the students to create sub-categories under each of the broad classifications. For example, sub-categories under Physical Features might be: Land, Water, and Climate. Sub-categories under Cultural Features might be: Cities, Jobs, Land Use, Population, and Culture.
3. Have the class complete Worksheet 9, in which they will invent and define specific map symbols.

Assessing the Lesson

As a whole group, have the students thumb through this atlas and notice the symbols that are represented on maps. As you focus on a particular map, have students identify whether the symbols stand for physical features or cultural features.

WORKSHEET ANSWERS

1. A circle with a star inside it ☉
2. A mountain peak
3. Blue
4. A small black dot
5. Colors
6. Check students' symbols and their definitions

Thinking Critically:

Thematic maps show different themes, such as differences in population, that cannot be shown on physical or political maps because it would be too confusing and crowded.

TIME TO EXPLORE ANSWER

Students should name Tucson, Mesa, and Las Vegas.

Name: _____



Creating Map Symbols

WORKSHEET 9

Use the visuals on atlas pages 22–23 to answer the questions below.

1. What symbol is used to show state capitals? _____
2. What does a solid black triangle stand for? _____
3. What color are the words that identify water features? _____
4. What symbol would be used to show a town of about 20,000 people? _____
5. What kind of symbol is used to show land elevation on physical maps? _____
6. In the spaces below, create map symbols to use in mapping your community. Create five symbols for physical features and five for cultural features. Make sure you create symbols specific to your community. For example, does your community have a library, schools, or a city hall building? Does your community have a pond, lake, or forest preserve? Your goal is to make sure the map reader gets an idea of the physical and cultural features of your community.

PHYSICAL FEATURES (Create a symbol in each box, then write what the symbol stands for on the line below it.)

_____	_____	_____	_____	_____

CULTURAL FEATURES (Create a symbol in each box, then write what the symbol stands for on the line below it.)

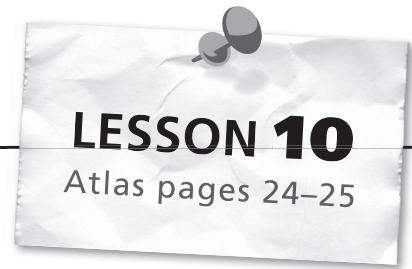
_____	_____	_____	_____	_____



Thinking Critically

Why do people need thematic maps, if they already have political and physical maps?

Researching the World's Extremes



Overview

Students will research some of the extreme places on the earth.

Objectives Correlated to National Geography Standards

Students will learn:

- About some of the extreme physical characteristics of places on Earth (Standard 4)

Curriculum Connections

Language Arts: Using research skills

Art: Illustrating physical features

Introducing the Lesson

Pose this question to the class: Did you know that there are patterns on the surface of the earth? The patterns have to do with how the physical systems of the world work. Tell the students that in this section of the atlas, they will be examining different kinds of world maps. Each map shows a different kind of pattern. Tell the class that the map on atlas pages 24–25 will introduce them to the earth's extremes. Ask them to think about how some of these extremes might fit into global patterns.

Developing the Lesson

1. Engage students in a discussion of the extremes. Guide them in noticing the ones that can be grouped together as opposites—the driest and wettest places, the highest and lowest points, and the coldest and hottest places.
2. Have the class form small groups. Assign each group one of the extremes on the map. Their job is to research that place and report back to class. They must quantify the extremes—for example, how cold, how hot, how high. They can use the Internet or resources from the school's media center.
3. Once students have made their reports, have them focus on the "Time to Explore" question.

Assessing the Lesson

Play a type of Jeopardy game in which students write questions and answers about the earth's extremes. Then involve the whole class in playing Jeopardy to see if they remember the locations or something about the extremes shown on the map.

Materials Needed

- World Extremes Map (atlas pages 24–25)

WORKSHEET ANSWERS

1. The Pacific Ocean
2. Africa
3. About 30 degrees north latitude
4. The longest reef system, the Great Barrier Reef
5. Asia
6. Check students' classifications for accuracy.

Thinking Critically:

Accept all reasonable answers.

TIME TO EXPLORE ANSWER

Students should realize that the world's coldest places are located near the Poles.

Name: _____

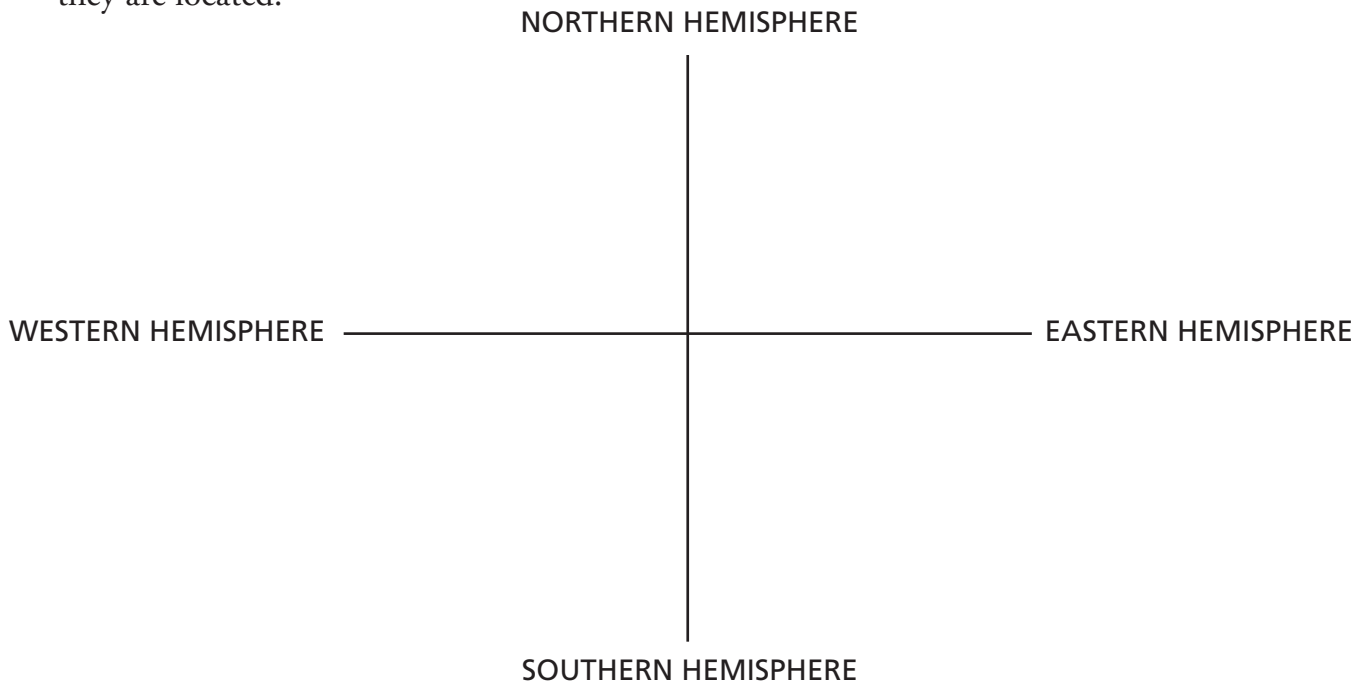


Locating Extremes by Hemisphere

Use the map on atlas pages 24–25 to answer the questions that follow.

1. What is the largest ocean? _____
2. On what continent is the world's longest river located? _____
3. What is the approximate latitude of the world's hottest place? _____
4. Australia is known for what physical feature that ranks above all others in its category?

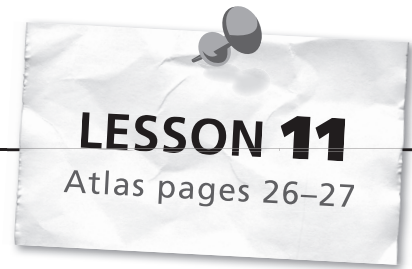
5. On what continent is the world's highest mountain located? _____
6. In the space below, list 10 of the world's extreme places and the correct hemispheres in which they are located.



Thinking Critically

Pick one of the earth's extremes. Describe it so that someone who knows nothing about geography would know where it is located and what it might look like.

World Geography Bowl



Overview

Students will create and play a game to build their mental maps of the world.

Objectives Correlated to National Geography Standards

Students will learn:

- How to build mental maps to organize information about countries of the world (Standard 2)

Curriculum Connections

Language Arts: Writing clues

Introducing the Lesson

Have the students turn their attention to the world political map on atlas pages 26–27. Ask them to locate the United States, tell what continent it is on, and in what hemispheres it is located. Tell them they will be creating and playing a game about all the countries of the world.

Developing the Lesson

1. Divide the class into four groups. Assign each group a part of the world. One group should be in charge of the Western Hemisphere north of the Equator, another group the Western Hemisphere south of the Equator, another group the Eastern Hemisphere north of the Equator, and the last group the Eastern Hemisphere south of the Equator.
2. Ask the groups to write questions that describe five countries in their quadrant. They can describe the countries' relative location to their neighbors, their location by global grid, their sizes, etc. They cannot refer to the countries' colors on the map.
3. Once the clues have been written, the game can begin. Each team takes turns reading one of its clues, and other teams guess. Award points for correct answers. The game can be played repeatedly, using different countries and switching students from one hemisphere to another.

Assessing the Lesson

Make copies of the World Outline Map with Country Boundaries on page 109 of this teacher's guide. Have students fill in the names of as many countries as they can. Do this repeatedly to build students' mental maps.

Materials Needed

- World Political Map (atlas pages 26–27)
- World Outline Map with Country Boundaries (teacher's guide page 109)

WORKSHEET ANSWERS

1. Canada and Mexico
2. Australia
3. Chile
4. Egypt
5. Russia and China
6. Check students' maps for accuracy and their 10 countries.

Thinking Critically:

Because it is too cold all year for people to live there permanently.

TIME TO EXPLORE ANSWER

Make sure students know where Russia is located. Other countries that are large in area include China, Australia, Canada, the United States, and Brazil.

Name: _____

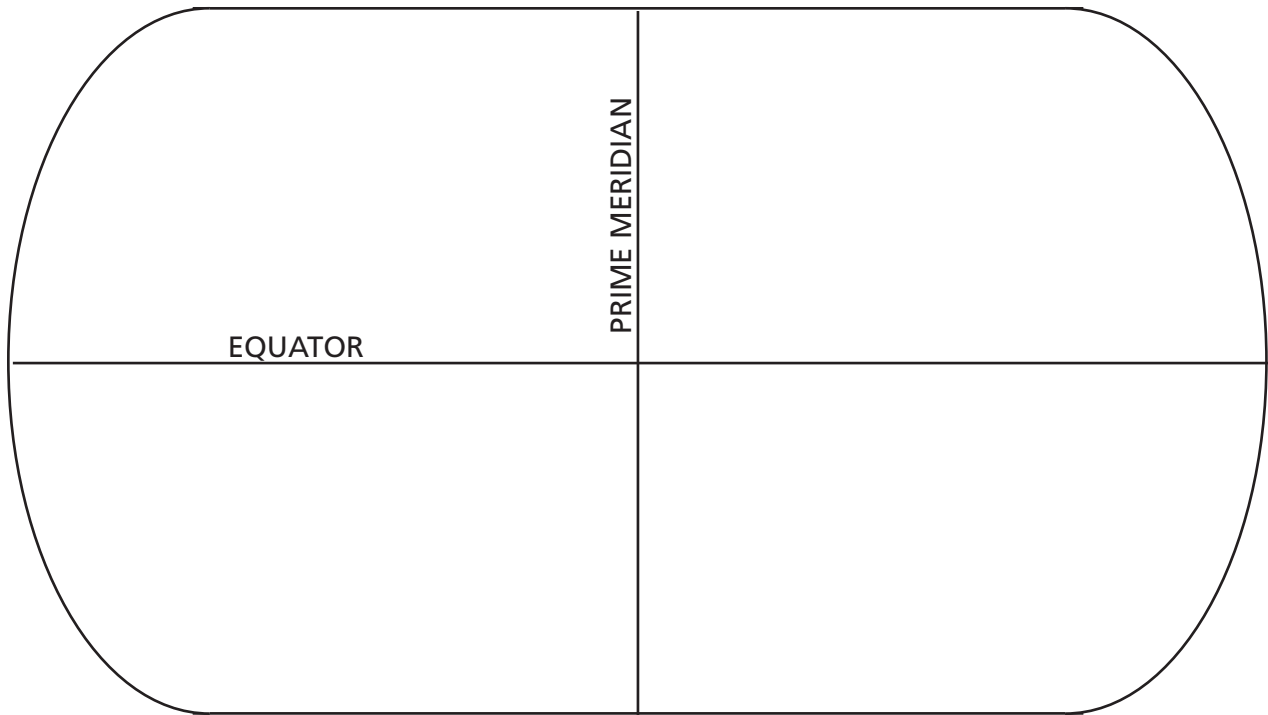


Take a Trip Around the World

WORKSHEET 11

Use the map on atlas pages 26–27 to answer the questions that follow.

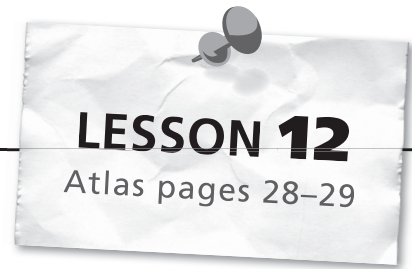
1. What countries are the nearest neighbors to the United States? _____
2. Name the continent that has only one country. _____
3. What country is directly west of Argentina? _____
4. What is the last country that the Nile River flows through before it empties into the Mediterranean Sea? _____
5. What are the two largest countries in Asia? _____
6. Plan a trip around the world. You must visit 6 continents and at least 10 countries. The Equator and Prime Meridian are drawn for you. Draw a simple sketch map of the world. Add your route and label the countries you visited.



Thinking Critically

Why do you think there are no countries located on the continent of Antarctica?

Mountain Climbing, River Rafting



Overview

Students will role play the relationship between mountains and rivers.

Objectives Correlated to National Geography Standards

Students will learn:

- About some of the physical processes that shape the patterns on the earth's surface (Standard 7)

Curriculum Connections

Science: Understanding the source of rivers

Drama: Role-playing concepts

Introducing the Lesson

Have the students spend some time studying the map on atlas pages 28–29. Tell them that the world is not random. Mountains and rivers are located in certain places for specific reasons. In this lesson, they will explore the relationship between mountains and rivers.

Developing the Lesson

1. Once students have located major mountain ranges on the map, engage them in the following role play, continent by continent.
2. In an open area in the classroom or other location, use tape or chalk to roughly outline the shape of a continent on the floor. Post a sign saying “North” so that the northern area of the map aligns to the north sign. The continent should be large, so that four to five students can stand on it at one time.
3. Start with North America. Invite about five students to come onto the continent and pretend to be on top of the Rocky and Appalachian Mountains. Tell them their feet are in snow. Ask where the snow goes when it melts (downhill). Invite three other students to raft the Missouri, Ohio, and Mississippi Rivers. Guide them in figuring out which direction the rivers will flow, then “flow” out to the mouth of the Mississippi.
4. Repeat the activity with the other continents.
5. Debrief the experience, emphasizing that all rivers flow downhill, but can flow any direction—north, south, east, or west. Their direction depends on the location of the mountains.

Assessing the Lesson

As a whole class, locate the mountains on the world physical map and ask students to tell what direction major rivers flow from each range.

Materials Needed

- World Physical Map (atlas pages 28–29)
- Southeast Region Political Map (atlas pages 66–67)
- Tape or chalk

WORKSHEET ANSWERS

1. The Plateau of Tibet
2. The Amazon
3. Ural Mountains
4. Between 2,000 and 5,000 feet. The Rockies are higher in elevation.
5. North
6. Check students' graphs for accuracy.

Thinking Critically:

The slope of the land; rivers always run downhill.

Name: _____

Graphing the World's Rivers

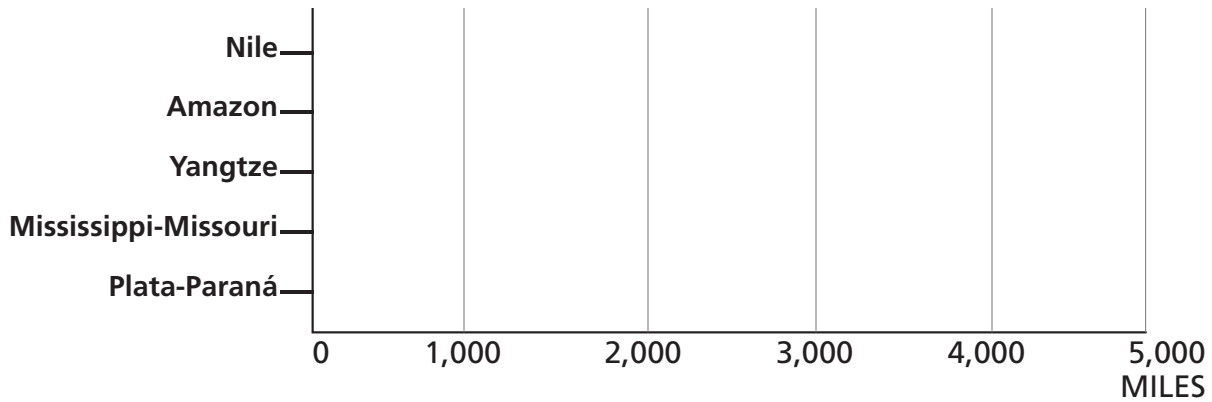


Use the map on atlas pages 28–29 to answer the questions that follow.

1. The Himalayas are the highest mountains in the world. What plateau is located on the north side of these mountains? _____
2. What major river system flows downhill from the Andes Mountains? _____
3. What major mountain range is located east of Moscow and divides Europe and Asia?

4. Estimate the elevation of the Great Dividing Range in Australia. Which are higher, the Rocky Mountains of North America or the Great Dividing Range? _____
5. In which direction does the Nile River flow? _____
6. The world's five longest river systems and their lengths are listed below. Draw lines in the graph to show the length of each river system.

RIVER	LENGTH
Nile	4,132 miles
Amazon	4,000 miles
Yangtze	3,915 miles
Mississippi-Missouri	3,989 miles
Plata-Paraná	2,920 miles



Thinking Critically

What determines the direction in which a river flows?

World Weather Reports

LESSON 13

Atlas pages 30–31

Overview

Students will analyze the climate graphs from different world regions and report the weather at different times of year.

Objectives Correlated to National Geography Standards

Students will learn:

- About some of the physical processes that shape the patterns on the earth's surface (Standard 7)

Curriculum Connections

Science: Understanding reasons for different climate regions

Drama: Demonstrating the earth-sun relationship

Introducing the Lesson

Tell students that latitude affects climate. Involve two students in a role play demonstration of the earth/sun relationship. Have one student hold a globe representing the earth. The other student can be the sun, with arms extending straight out as sun rays. When they see the sun's rays striking directly at the Equator, they will realize that the farther away a place is from the Equator, the colder the climate.

Developing the Lesson

1. Have the class examine the climate graphs on atlas pages 30–31 and compare them to the descriptions on the map legend. Discuss the definitions of continental and highlands climates. A continental climate is usually located in the middle of continents, far from the moderating effect of oceans. For this reason, temperatures there tend to be cold in winter and warm in summer. Highlands climates vary with elevation. The higher the elevation, the cooler the climate. The highlands climate graph shows the temperature and precipitation specifics for just one elevation in the region. The climate graph for another city in the highlands climate area of Mexico might look very different, based mainly on whether that city is at a higher or lower elevation.
2. Ask students to identify the global pattern they see on the climate map. They should realize that the hottest climates are located at or near the Equator and the coldest ones are near the Poles.
3. Divide the class into six groups, one for each climate region. Ask them to prepare weather reports from their regions. Their reports should be entitled something like, "Reporting from ____ in the Month of ____." In their reports, instruct them to make note of other places around the world that have the same climate. They can create posters or other visuals to go along with their reports. This can be an independent/individual project as well.
4. Invite the groups or individual students to share their reports with the rest of the class.

Assessing the Lesson

Tell the students that they must communicate with someone in outer space about Earth. Have them write a paragraph describing the global climate patterns on Earth.

Materials Needed

WORKSHEET ANSWERS

1. Jakarta
2. Cold and dry
3. Tehrān
4. Between 1½ and 3 inches per month.
5. Moscow
6. Classifications:
 - Tropical: Brazil (10 S. Lat.), Thailand (15 N. Lat.), Congo (0 Lat.)
 - Dry: Libya (25 N. Lat.), Saudi Arabia (23 N. Lat.), Australia (23 S. Lat.)
 - Moderate: Germany (48 N. Lat.), Uruguay (35 S. Lat.), Ireland (50 N. Lat.)
 - Continental: Canada (60 N. Lat.), Russia (60 N. Lat.)
 - Polar: Antarctica (80 S. Lat.)

Students should see that climates tend to be hotter toward the Equator, colder toward the Poles, and drier near the Tropics of Cancer and Capricorn.

Thinking Critically:

Paris probably does not receive a lot of snow, because the temperatures rarely go below freezing.

TIME TO EXPLORE ANSWER

Along the Equator you would travel through three climate regions (mostly through tropical regions). Along the Tropic of Capricorn, you would travel through four different climate regions.

Name: _____

Classifying Countries by Climate

WORKSHEET 13

Use the maps on atlas pages 26–27 and 30–31 to answer the questions below.

1. Which has a hotter climate all year around: Jakarta, Indonesia, or Cairo, Egypt? _____
2. What is the climate like in Antarctica? _____
3. On the climate map, what city in Asia has the same type of climate as Cairo? _____
4. About how much rain falls in Paris per month? _____
5. Which city has colder temperatures in winter: Paris or Moscow? _____
6. A dozen countries are listed below. Write down the approximate latitude of the center of each country, then put an X in the climate category each country belongs in. After you have completed these tasks, describe the relationship between each climate category and latitude. (For example, at what latitudes are most tropical climates found?)

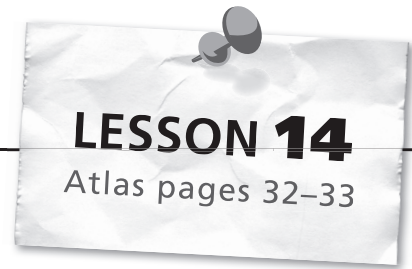
	TROPICAL	DRY	MODERATE	CONTINENTAL	POLAR
Brazil _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Russia _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Australia _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thailand _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Libya _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Canada _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Germany _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Saudi Arabia _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Congo _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Uruguay _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ireland _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Antarctica _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Thinking Critically

Do you think that Paris receives a lot of snow? Explain.

Creating Environment Posters



Overview

Students will create posters that depict each of the six environments shown on the map.

Objectives Correlated to National Geography Standards

Students will learn:

- About some of the physical processes that shape the patterns on the earth's surface (Standard 7)
- How people modify the physical environment (Standard 14)
- About the patterns of human settlement (Standard 12)

Curriculum Connections

Language Arts: Summarizing information

Art: Creating displays

Introducing the Lesson

Remind students that geography often involves analyzing patterns. When they look at the map on atlas pages 32–33, ask if they can see any patterns. Tell them that in this lesson, they will be exploring different environments on the earth. The environments have formed at certain places for specific reasons.

Developing the Lesson

1. Have students look at the forest regions along the Equator. Ask students to hypothesize why the forests thrive there. (Along the Equator, it is always hot and wet, good conditions for tropical rainforests.)
2. Next, ask them to locate the major deserts of the world. They should notice that these tend to form between 15 and 35 degrees north and south latitude. Tell the class that this is because of how air moves on the earth. When air reaches those bands, it has very little moisture in it.
3. In order to examine the different environments closely, divide the class into six groups. Assign each group one of the environments. Instruct them to create posters that illustrate their environments. They can conduct research on the Internet or in the school library so that their descriptions are accurate. They can collect photos from old magazines.
4. Ask the groups to present their posters to the rest of the class.

Assessing the Lesson

After all the groups have presented their information, have all the students write short paragraphs describing each of the six environments.

Materials Needed

- World Environments Map (atlas pages 32–33)

WORKSHEET ANSWERS

1. 60–90 degrees north and south latitude
2. Accept answers between 0 and 15 degrees north and south latitude
3. In regions at higher latitudes, where the climates are colder
4. Deserts
5. Los Angeles, Houston, Chicago, or New York
6. Accept all reasonable descriptions

Thinking Critically:

Most of the world's urban areas are located between 20 and 60 degrees north and south latitude, where the climate is not too hot or cold. Many are located along coasts or inland water bodies.

TIME TO EXPLORE ANSWER

Barren and tundra environments are found in high latitudes (that is, latitudes farthest from the Equator) and on mountaintops where the climate is always cold.

Name: _____



Writing Daily Logs

Use the maps on atlas pages 32–33 and 26–27 to answer the questions below.

1. At what latitudes are the barren and tundra environments located? _____
2. Generally, at what latitude would you expect to find tropical rainforests? _____
3. Would evergreen trees be found in tropical regions or regions at higher latitudes? Explain.

4. What large environment do you find along the Tropic of Cancer in Africa and along the Tropic of Capricorn in Australia? _____
5. Name one urban area in the United States. _____
6. Imagine that you are traveling around the world. In the spaces provided, choose six locations, one in each environment. Write a log entry for each location, describing where you are and what it looks like there.

LOCATION	DESCRIPTION
LOG ENTRY 1 _____	_____
LOG ENTRY 2 _____	_____
LOG ENTRY 3 _____	_____
LOG ENTRY 4 _____	_____
LOG ENTRY 5 _____	_____
LOG ENTRY 6 _____	_____



Thinking Critically

Can you find any patterns defining where most of the world's urban areas are located? Explain.

City Search for Stolen Treasure



Overview

Students will explore the most populous regions on the earth by participating in a simulation involving stolen treasure.

Objectives Correlated to National Geography Standards

Students will learn:

- About the patterns of human settlement on the earth and the reasons for its unevenness (Standard 12)

Curriculum Connections

Language Arts: Writing fiction

Introducing the Lesson

Tell the class that there has been a terrible crime committed—an ancient sculpture has been stolen from a museum. They must track down the thief through various regions to try to find the treasure. They must use the map on pages 34–35 as their guide.

Developing the Lesson

1. Divide the class into six groups and assign each group one of the following regions: North America, South America, Europe to 30 degrees east longitude, Africa, Asia, and Australia and surrounding island countries to 15 degrees north latitude.
2. Instruct each group to write clues for the cities in their regions, omitting their names. They can use the Internet to find details about the cities in order to embellish their stories. They can provide clues about relative location or absolute location (global grid).
3. Start the simulation by saying, “The thief stole the sculpture from a museum in Moscow. But he escaped capture and boarded a train bound for...” Point to the Europe or Asia group and let them fill in clues for their city. They can refer to population information from the map as they “travel,” for example “crossing a vast desert where few people live.”
4. Other groups can guess the city based on the clues. Then that group invents a journey to one of their cities, and the tale continues until everyone has had a chance to participate.

Assessing the Lesson

As a whole class, locate all the most densely populated regions on the earth, naming the countries in those areas.

Materials Needed

- World Population Density Map (atlas pages 34–35)

WORKSHEET ANSWERS

1. Antarctica
2. Asia
3. Antarctica
4. Over 250 people per square mile
5. New York City
6. A. North Africa, under 2.5 people per sq. mi., desert
B. Europe, between 62.5 and 250 people per sq. mi, mid-latitude mild climate
C. Eastern China, over 250 people per sq. mi., mid-latitude mild climate
D. Western China, under 2.5 people per sq. mi., plateau high in elevation with desert-like conditions
E. Australia, under 2.5 people per sq. mi., desert
F. Greenland, under 2.5 people per sq. mi., ice cap
G. Northern Brazil, under 2.5 people per sq. mi., rainforest, hot and wet climate

Thinking Critically:

People tend not to live in places that are very dry or wet, or very hot or cold. They live in places that are milder where they can make a living and grow crops. These tend to be between the latitudes of 15 to 60 degrees.

TIME TO EXPLORE ANSWER

Most of North Africa is desert.

Name: _____



Matching Population to Places

WORKSHEET 15

Use all of the maps on atlas pages 24–35 to answer the questions below.

1. What continent has the sparsest, or least dense, population? _____
2. What continent is most heavily populated? _____
3. What continent has no permanent population? _____
4. What is the population density of most of the area surrounding Mumbai, India?

5. Which has a greater population density, New York City or Sydney? _____
6. Match each of the seven regions listed below with the correct global address. Then fill in the remaining blanks with the population density of that region and the possible reason why that region has high or low population density.

- Australia
- Northern Brazil
- North Africa
- Greenland
- Western China
- Eastern China
- Europe

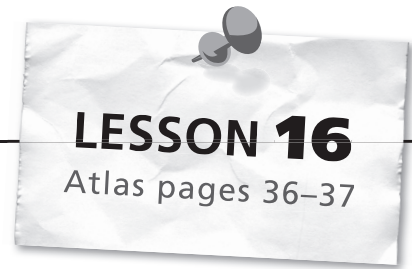
GLOBAL ADDRESS	REGION	POPULATION DENSITY	POSSIBLE REASON FOR THIS DENSITY LEVEL
A. 25°N, 15°E	_____	_____	_____
B. 50°N, 10°E	_____	_____	_____
C. 30°N, 110°E	_____	_____	_____
D. 40°N, 80°E	_____	_____	_____
E. 25°S, 130°E	_____	_____	_____
F. 75°N, 40°W	_____	_____	_____
G. 0°, 60°W	_____	_____	_____



Thinking Critically

Draw conclusions about why people live where they do. Do the same for those regions that have few people.

Extreme Perspectives



LESSON 16

Atlas pages 36–37

Overview

Students will be introduced to a global perspective of the United States, in which Alaska and Hawaii are in their correct locations, and then will examine the country's superlatives.

Objectives Correlated to National Geography Standards

Students will learn:

- About the physical and human extremes of our country (Standard 4)

Curriculum Connections

Math: Understanding spherical measurements

Introducing the Lesson

Point out the global perspective of our country on atlas pages 36–37. Tell students that when viewed in its actual location on a globe, our country spans a large part of the planet.

Developing the Lesson

1. Hold a globe in front of the class. Tell students that they are going to see just how large our country really is.
2. Ask for volunteers to locate the easternmost and westernmost points of the United States. Use the map and globe to identify their longitudes.
 - West Quoddy Head, Maine = 66 degrees west longitude (easternmost)
 - Cape Wrangell, Alaska = 172 degrees east longitude (westernmost)
3. Do the same for the northernmost and southernmost points.
 - Point Barrow, Alaska = 71 degrees north latitude
 - Kalae, Hawaii = 18 degrees north latitude
4. Give the class the following math problem. Inform them that there are 360 degrees around a spherical object, both north to south and east to west. Have them calculate the size of the United States in relation to the whole planet.
 - The United States spans from 66° west longitude to 172° east longitude. So, first subtract: 180 minus 66 = 114 degrees of longitude
 - Then they must find the number of degrees that Alaska extends beyond 180° west longitude, which is: 180 minus 172 = 8 degrees of longitude
 - Add 114 + 8 = 122 degrees of longitude total from east to west, or approximately 120 degrees
 - Create a fraction: 120/360.
 - Reduce the fraction: 120/360 = 1/3. Measuring west to east, the United States takes up one-third of the earth's surface.
5. Have the class calculate the span of the United States from north to south on Worksheet 16.

Assessing the Lesson

After they have completed Worksheet 16, have students use a globe to describe the distances that the United States spans on the earth's surface, using latitude and longitude.

Materials Needed

- United States Extremes Map (atlas pages 36–37)

WORKSHEET ANSWERS

1. It is the lowest point and also the hottest and driest place in the country.
2. Florida
3. Mount McKinley, Alaska
4. The Mississippi-Missouri
5. Lake Superior
6. Check students' calculation
 - a. 53 degrees, measuring north to south
 - b. 60 degrees
 - c. 60/360
 - d. 1/6

Thinking Critically:

The span between the easternmost and westernmost points is 122 degrees of longitude. (Keep in mind that the westernmost point actually lies in the Eastern Hemisphere, 8 degrees west of the 180° longitude line.) Half of 122 is 61. This means that the halfway point lies 61 degrees west of 66°W longitude (the longitude of the easternmost point) and 61 degrees east of 172°E longitude (the longitude of the westernmost point). The longitude of the halfway point is 127°W longitude.

TIME TO EXPLORE ANSWER

Hawaii's southernmost point is approximately 20 degrees north latitude. Florida's tip (not including the Florida Keys) is approximately 25 degrees north latitude.

Name: _____

Calculating the Size of the U.S.



WORKSHEET 16

Use the map on atlas pages 36–37 to answer the questions that follow.

1. What is Death Valley, California, famous for? _____
2. Where is the largest wetland located? _____
3. What is the highest point in the United States? _____
4. What is the longest river system? _____
5. What is the largest of the Great Lakes? _____
6. How much of the earth's area does the United States cover? The country spans from 71° north latitude to 18° north latitude. Based on this information, calculate the size of the United States from north to south.
 - a. Subtract: 71 minus 18 = _____
 - b. Round the number up to the nearest 10: _____
 - c. Create a fraction with 360 degrees as the denominator: _____
 - d. Reduce the fraction: _____



Thinking Critically

The easternmost point in the United States is at 66°W longitude, and the westernmost point is at 172°E longitude. What longitude is the halfway point between these two extremes?

Touring the Country by Alphabet



Overview

Students will describe each of the 50 states, including their cities, locations, and proximity to water bodies.

Objectives Correlated to National Geography Standards

Students will learn:

- How to use a detailed map of the U.S. to acquire information (Standard 1)
- How to use mental maps to organize information about places (Standard 2)

Curriculum Connections

Language Arts: Alphabetizing

Introducing the Lesson

Focus students' attention on the detailed map of the United States on atlas pages 38–39. Make sure they realize that Alaska and Hawaii are not in their correct locations. Tell the class that they are going to discuss the 50 states in order alphabetically. Refer to the alphabetical list on page 120.

Developing the Lesson

1. Have the students take turns discussing each of the 50 states. Invite the first volunteer to find the state that comes first in the alphabet (Alabama). That person describes the relative location of the state, names its capital, and any interesting information about the state's water bodies. Then that student writes the name on the board.
2. Repeat the activity until all the states have been covered.
3. Erase the list of states.

Assessing the Lesson

Play a game to evaluate students' mastery of U.S. geography. Call out a letter of the alphabet. Students must name a state that starts with that letter and name its capital. Award points for correct answers. Make copies of the United States Outline Map without State Names (page 121 of this teacher's guide) and have students label it.

Materials Needed

- United States Detailed Map (atlas pages 38–39)
- United States Outline Map without State Names (teacher's guide page 121)
- State Table (atlas page 120)

WORKSHEET ANSWERS

1. Idaho
2. Virginia
3. Mexico
4. Florida
5. Hawaii
6. Check students' worksheets for accuracy.
 - Tennessee — Nashville
 - Minnesota — St. Paul
 - Rhode Island — Providence
 - Arizona — Phoenix
 - Oregon — Salem
 - Vermont — Montpelier
 - Pennsylvania — Harrisburg
 - Nevada — Carson City
 - Missouri — Jefferson City
 - Delaware — Dover

Thinking Critically:

The capital cities of the majority of states are located near the center of the state. This was done so that all the people in the state would have the same access to the capital.

Name: _____

Mental Map Construction



Use the map on atlas pages 38–39 to answer the following questions.

1. What state is located between Washington and Montana? _____
2. What state lies directly north of North Carolina? _____
3. What country borders Texas? _____
4. What state is nearly surrounded by the Atlantic Ocean and the Gulf of Mexico? _____
5. What is the southernmost state? _____
6. Match the following states with their capitals. Be aware that some of the cities listed are not capitals.

STATE	CAPITAL	
Tennessee	_____	• Phoenix
Minnesota	_____	• Tampa
Rhode Island	_____	• Jefferson City
Arizona	_____	• Carson City
Oregon	_____	• New York City
Vermont	_____	• Montpelier
Pennsylvania	_____	• St. Paul
Nevada	_____	• Dover
Missouri	_____	• Nashville
Delaware	_____	• Providence
		• Salem
		• Harrisburg
		• Tucson



Thinking Critically

Look at the locations of the capital cities of the 50 states. What judgment can you make about why their locations were chosen?

Checking the Borders

LESSON 18

Atlas pages 40–41

Overview

Students will examine our international boundaries and some of our state boundaries in order to understand the role played by physical features.

Objectives Correlated to National Geography Standards

Students will learn:

- How to use a map of the United States to acquire information (Standard 1)
- How physical features affected people's decisions in choosing boundaries (Standard 15)

Curriculum Connections

History: Understanding settlement patterns

Introducing the Lesson

Focus students' attention on the political map of the United States on atlas pages 40–41. Make sure they realize that on this map Alaska and Hawaii are in their correct locations. Tell the class that often studying maps can tell you a little about the history of a place. They are going to explore the way some of our country's boundaries were created.

Developing the Lesson

1. Spend a few minutes examining the map state by state. As a whole class, write a tally of the number of states that have rivers for boundaries. Students may need to check the detailed map on atlas pages 38–39 as well. They will see that more than half the states have rivers for boundaries.
2. Make copies of the United States Outline Map with State Names (page 119 of this teacher's guide), one per student. Have them color all of the states that have rivers for boundaries. They should realize that rivers were a common and easy way to define a boundary. River boundaries allowed states on both sides of the river to use it for transportation and trade.
3. Have students compare our borders with Mexico and Canada. Ask how water bodies affected the mapmakers' choices in both those cases. (The Rio Grande and Great Lakes formed parts of the borders, which allowed both countries to share use of the waterways.)

Assessing the Lesson

Have students write short paragraphs summarizing the use of rivers for boundaries in the history of the United States.

Materials Needed

- United States Political Map (atlas pages 40–41)
- United States Detailed Map (atlas pages 38–39)
- United States Outline Map with State Names (teacher's guide page 119)

WORKSHEET ANSWERS

1. The Mississippi
2. Four of the Great Lakes, excluding Lake Ontario
3. 10
4. When states were created in the East, mapmakers drew boundaries around existing colonies, which were small. They followed the ups and downs of the land and rivers. When mapmakers drew boundaries in the West, they didn't have population centers to follow, so they draw straight lines, often following latitude and longitude lines.
5. Nevada, California, Arizona
6. Accept all reasonable paragraphs.

Thinking Critically:

Those boundaries follow the ridges of the Appalachian Mountains.

TIME TO EXPLORE ANSWER

Measured from its easternmost point to its westernmost point, Alaska is almost as wide as the 48 states.

Name: _____



Letters Home

Use the maps on atlas pages 38–39, 40–41, and 42–43 to answer the following questions.

1. What river separates Illinois and Missouri? _____
2. What bodies of water define the boundaries of Michigan? _____
3. How many states share the Mississippi River as part of their boundary? _____
Hint: The Mississippi begins its journey in Minnesota.
4. Why are states larger in the West and smaller in the East? _____

5. The Colorado River forms part of the boundary of what states?

6. Imagine you are living in the year 1900. You are traveling by boat, which could be a paddle wheeler, canoe, or flatboat. On a separate sheet of paper, write a letter home explaining your journey to your family. Describe the political geography along your route.



Thinking Critically

Locate the curvy boundaries of North Carolina, Virginia, and West Virginia. Why do you think those boundaries are shaped like that?

Plate Movement Demo



Overview

Students will participate in activities in order to understand how and why tectonic plates move.

Objectives Correlated to National Geography Standards

Students will learn:

- About some of the physical processes that shape the earth's crust (Standard 7)

Curriculum Connections

Science: Understanding plate tectonics

Introducing the Lesson

Ask students if they think mountains can grow. Tell them that in this lesson they are going to see that some mountain ranges do get higher in elevation. The reason has to do with the movement of the earth's crust.

Developing the Lesson

1. Cut an apple in half. Engage students in a discussion about the parts of an apple and compare them to the structure of the earth. The apple peel is like the earth's crust, the thin outer layer. The apple core is like the earth's core in the center. The fruit of the apple is the earth's mantle.
2. Point out that the rock in the earth's mantle is magma, a semi-liquid, semi-solid substance that moves very slowly. Ask students where the hottest place inside the earth is (the core). Describe convection currents (hot liquids or gases rise and cool ones sink, which together form a circular movement). Inform students that this kind of movement takes place in the magma in the mantle, as it is heated by the core.
3. Ask for two volunteers to hold two pieces of cardboard representing pieces of crust. Ask another student to be the "core" and sit on the floor below the "crust." A fourth student can demonstrate the movement of convection currents (over the head of the "core").
4. Plates, or pieces of crust, ride the moving magma like packages on a conveyor belt. Students should see that as the currents move toward one another, plates collide and mountains rise higher.
5. Have students complete Worksheet 19.

Assessing the Lesson

Have students write paragraphs describing the presence of mountains in the western United States as related to plate movement.

Materials Needed

- 1 apple
- 2 small pieces of cardboard

WORKSHEET ANSWERS

1. A piece of the earth's crust
2. The Pacific Plate, the North American Plate, and the Juan de Fuca Plate
3. A large, low, flat plain
4. The plates move as convection currents in the magma of the earth's mantle move.
5. Because it is located on the boundary between two plates
6. Make sure students' diagrams are correct.

Thinking Critically:

Landforms rise as convection currents move toward one another and cause pieces of crust to collide.

TIME TO EXPLORE ANSWER

Both earthquakes and volcanoes are caused by shifting plates as pressure builds up along the boundaries where they collide.

Mapping Physical Features

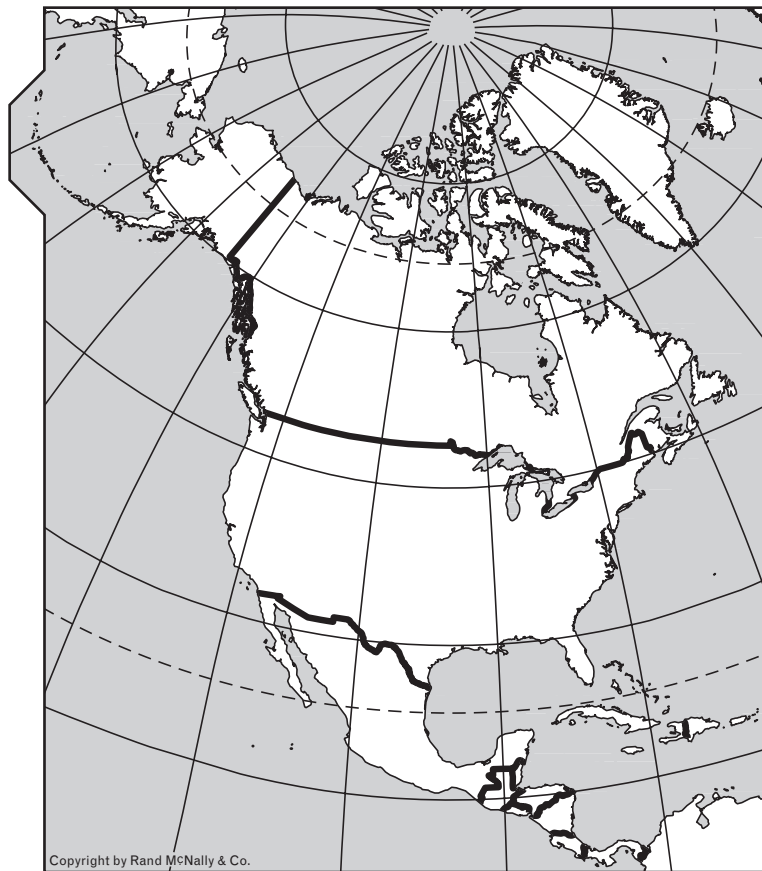
Use the maps and text on pages 42–43 to answer the questions that follow.

1. What is a tectonic plate? _____
2. What three tectonic plates cause earthquakes along the west coast of North America?

3. What is the main physical feature that lies between the two main mountain systems that run through the United States? _____
4. Why do plates move? _____
5. Why are there earthquakes in California? _____

6. On the map to the right, add the following elements.

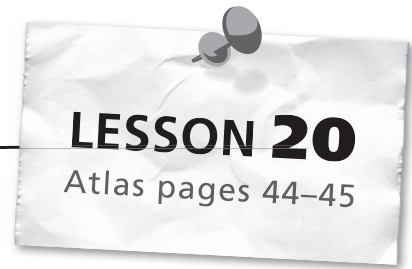
- a. symbols and labels for the Rocky Mountains, the Sierra Nevada, the Coast Ranges, and the Cascade Range
- b. a plate boundary
- c. the Pacific Plate
- d. the North American Plate
- e. direction arrows showing plate movement



Thinking Critically

Describe how moving magma affects landforms on the earth's crust.

Choices in Different Climates



Overview

Students will investigate the reasons for climate patterns in our country and consider different recreational activities in different regions.

Objectives Correlated to National Geography Standards

Students will learn:

- About some of the physical processes that shape the earth's crust (Standard 7)

Curriculum Connections

Science: Understanding weather and climate patterns

Introducing the Lesson

Ask students how the weather affects their decisions. Tell them that climate is the weather over long periods of time. In this lesson, they will imagine they are living in different climate regions and must think about the kinds of activities they will pursue.

Developing the Lesson

1. Divide the class into pairs and assign each group one or two of the cities shown on the map on atlas pages 44–45.
2. Ask the students to study the climate description for their city. They can also look at other maps in this section or conduct research on the Internet.
3. Instruct the groups to choose a season and report on their recreational choices for that particular place at that time of year.
4. Check the climate map as they report their responses.

Assessing the Lesson

Play a game where someone names a state and others report the climate for that state. Or, reverse the activity: someone names a climate region and others tell what states are located there.

Thinking Critically:

The warm, humid air is blowing off the Gulf of Mexico, where it picks up water from the ocean's surface. The hot, dry air is blowing across the dry land of Mexico where there is no moisture to pick up.

TIME TO EXPLORE ANSWER

Three air masses collide in the center of the United States: cold, dry air; hot, dry air; and warm, humid air. This collision produces rain-bearing storms.

Materials Needed

- United States Climate Map (atlas pages 44–45)

WORKSHEET ANSWERS

1. Tropical, hot and rainy
2. Phoenix
3. Both cities have a moderate climate
4. Continental, mild summer and snowy winter
5. Chicago and Detroit
6. Make sure students' answers include the reasons explaining the differences in climate.
 - a. Cold, dry air blows in from Canada. Also Minneapolis is higher in latitude, so it has a colder climate.
 - b. Mountains change climate patterns, which affects Denver's weather. The higher you go in elevation, the cooler the climate.
 - c. Seattle has a moderate, rainy climate because of the cool, humid air blowing off the Pacific Ocean. Because of mountains to the east, the air drops its moisture on Seattle.
 - d. Houston has a wetter, more moderate climate because it gets hit by the warm, humid air blowing off the Gulf of Mexico.
 - e. Much of the West is dry because the mountains block the air blowing off the Pacific, forcing it to drop its moisture along the coast, which leaves the interior west much drier.
 - f. Northern Alaska has a polar climate because of its location near the North Pole.

Name: _____



Climate Patterns Revealed

WORKSHEET 20

Use the maps on atlas pages 44–45 to answer the questions that follow.

1. What is the climate like in Miami? _____
2. Name one city that has a dry climate. _____
3. How are the climates for San Francisco and Los Angeles similar? _____
4. Describe Boston's climate. _____
5. Which two cities are more similar in their weather—Chicago and Detroit or Chicago and Washington, D.C.? _____
6. Describe the reasons for some of the climate regions. You must compare both maps on pages 44–45 in order to draw conclusions. You may also need to look at the physical map on pages 42–43.
 - a. continental climate in Minneapolis _____

 - b. highlands climate in Denver _____

 - c. moderate rainy winter in Seattle _____

 - d. moderate wetter climate in Houston _____

 - e. dry climate in much of the western part of the United States _____

 - f. polar climate in northern Alaska _____



Thinking Critically

Look at the map showing air masses. Why do you think there is hot, dry air blowing into New Mexico and Texas, but warm, humid air blowing into Louisiana?

A Dictionary of Environment Terms

LESSON 21

Atlas pages 46–47

Overview

Students will research the environments of the United States and create lists of terms and definitions that apply to them.

Objectives Correlated to National Geography Standards

Students will learn:

- About some of the physical and human characteristics of the United States (Standard 4)
- How people have modified the physical environment (Standard 14)

Curriculum Connections

Science: Finding relationships between environments and climates

Language Arts: Writing definitions, alphabetizing

Introducing the Lesson

Discuss the term “natural vegetation” as what grows naturally on the earth without the intervention of human beings. Ask students to look at the map on atlas pages 46–47 and decide if it is a natural vegetation map (no). They should realize when studying the legend that the map shows our country as it has been altered by people.

Developing the Lesson

1. As a whole class, compare the environments map to the physical map and climate map in this section (atlas pages 42–43 and 44–45). Invite students to point out relationships that they see. For example, croplands are located in low, flat plains where there is plentiful rain. Grazing takes place on flat land where the climate is drier. Forests tend to be located in mountainous regions where it’s cooler or in southern regions where it’s wetter.
2. Tell the class that they are going to make an illustrated dictionary of terms related to the environment. Divide the class into six groups, one for each of the types of environments shown on the map. Have them go to the library or Internet and research their assigned environments. Their task is to assemble a list of vocabulary terms and definitions for their region. They must also explain where those environments are located in relation to landforms and climate patterns.
3. Ask the groups to type (or print) their terms and definitions in an agreed-upon style. If appropriate, they can add illustrations for selected entries.
4. To create the final products, have them cut and paste all of the terms and definitions in alphabetical order for a completed dictionary.

Assessing the Lesson

Engage students in a discussion about the environments of the United States. Then have them write a sentence about their own environment and its relationship to landforms and climate. In urban regions, they should mention proximity to water bodies.

Materials Needed

- United States Physical Map (atlas pages 42–43)
- United States Climate Map (atlas pages 44–45)
- United States Environments Map (atlas pages 46–47)
- Glue or tape
- Several pairs of scissors

WORKSHEET ANSWERS

1. Forest and swamp; urban regions
2. Flat land of the Great Plains where the climate is drier
3. In the Northeast
4. Cropland
5. Desert
6. Check students’ nicknames for appropriateness

Thinking Critically:

People altered the natural vegetation so they could grow crops, raise animals, manufacture goods, and build systems for connecting people in our country.

TIME TO EXPLORE ANSWER

The land in the center of our country is flat and has ample rain for growing crops or grazing livestock.

Name: _____



Nicknames by Environment

WORKSHEET 21

Use the environments map and text on atlas pages 46–47 and the physical map on atlas pages 42–43 to answer the questions that follow.

1. What two environments take up most of Florida? _____
2. Describe the physical geography of the environments where animals graze.

3. Where is the largest urban area located? _____
4. What type of environment covers nearly the entire state of Illinois?

5. Nevada is made up of what kind of environment? _____
6. All states have nicknames that tell something about the state. Florida, for example, is known as “The Sunshine State.” Choose six states that have different environments and invent different nicknames for them that relate to their environments.

STATE _____ NICKNAME _____

STATE _____ NICKNAME _____

STATE _____ NICKNAME _____

STATE _____ NICKNAME _____

STATE _____ NICKNAME _____

STATE _____ NICKNAME _____



Thinking Critically

Why do you think people changed so much of the natural vegetation in our country?

Population Density Guessing Game

LESSON 22

Atlas pages 48–49

Overview

Students will examine the population density map and play a game where they announce the density of states named.

Objectives Correlated to National Geography Standards

Students will learn:

- About some of the human characteristics of the U.S. (Standard 4)
- About the distributions of U.S. populations (Standard 10)

Curriculum Connection

Math: Understanding density figures

Introducing the Lesson

Ask students to locate where they live on the map on atlas pages 48–49 and identify the population density of their region. Discuss it in terms of numbers of people per square mile. Ask them to consider whether that is an accurate representation.

Developing the Lesson

1. Discuss the patterns they see on atlas pages 48–49. Students should realize that the population is more dense in the eastern part of the country.
2. Now focus students' attention on the small inset map showing areas where population is decreasing and increasing.
3. Play a game in which you name a state and students describe the population density of that state. They may need to refer to the political maps on atlas pages 38–41. After they describe the density, have them refer to the small map and tell whether population is increasing or decreasing.

Assessing the Lesson

Have students write paragraphs describing the distribution of population in our country and how it is shifting.

Materials Needed

- United States Population Density Map (atlas pages 48–49)

WORKSHEET ANSWERS

1. Over 250 people per square mile
2. Over 250 people per square mile
3. They both have sparse populations, under 2.5 people per square mile in most of their areas, but a little higher (2.5–62.5) in other areas.
4. The middle of the United States, from the Canadian border all the way to the Mexican border, is losing population.
5. Arkansas has a population density of 2.5 to 62.5 people per square mile.
6. Check that the legend entries range from less than 3 people in the first box to over 10 people in the 4th box.

Thinking Critically:

The West has a lower population density because it is much drier and cannot support large populations. It is also more mountainous and rugged.

TIME TO EXPLORE ANSWER

Most areas of the West and the East are gaining population. The Midwest and parts of the East are losing population.

Name: _____



Making "Picture Keys"

Use the maps on atlas pages 40–41 and 48–49 to answer the questions below.

1. What is the population density of New York City? _____
2. What is the population of Los Angeles? _____
3. Compare the populations of Montana and Wyoming.

4. What part of the United States is losing population?

5. What is the population density of Arkansas? _____
6. The four squares below represent four square miles on the earth's surface. Make each one represent the population density listed below it. Create a symbol, such as a circle or a stick figure of a person, to represent one person. Then create "picture keys" to represent the four levels of population density.

1 Square Mile

Four empty squares are arranged horizontally. Above the first square is a bracket labeled "1 Square Mile". Below each square is a label for a population density range.

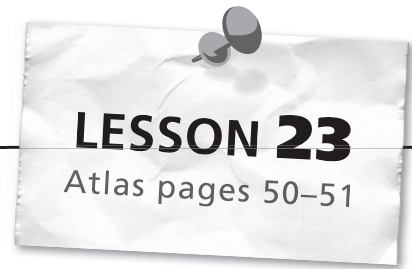
Under 3 people per square mile 3–5 people per square mile 6–10 people per square mile Over 10 people per square mile



Thinking Critically

Why do you think much of the western part of the United States has a population density of less than 2.5 people per square mile?

Time Zone Rebus Stories



Overview

Students will use the map on atlas pages 50–51 to invent stories that take place in the different time zones in our country.

Objectives Correlated to National Geography Standards

Students will learn:

- That people have created time zones to represent the rotation of the earth (Standard 5)

Curriculum Connections

Language Arts: Writing stories

Math: Subtracting and adding

Math: Working word problems

Art: Inventing rebus symbols

Introducing the Lesson

After students study the map on atlas pages 50–51, ask them to tell why we have six time zones in our country. They should realize that it has to do with how the sun shines on the earth as it rotates.

Developing the Lesson

1. Focus students' attention on the clocks in each of our six time zones.
2. Tell the class that they are going to create stories about what is happening in each time zone at those particular times, but should insert rebus symbols into their writing. For example, instead of writing "When the clock struck 7:00 A.M.," students can draw a picture of a clock showing 7:00 A.M.
3. They can choose whether the time zones are morning or evening, but they should not mix the two.
4. They can refer to specific states in the regions, but may want to substitute the state outline as a rebus symbol when doing so.

Assessing the Lesson

Play a game where you name a certain time in a certain state. Then name other states and have students call out the times in those states.

Materials Needed

- United States Time Zones Map (atlas pages 50–51)

WORKSHEET ANSWERS

1. 11:00 P.M.
2. No, both cities are in the same time zone.
3. The western islands of the Aleutian chain are in the same time zone as Hawaii.
4. The call would wake up the person in Atlanta at 3:00 A.M.
5. 7:00 P.M.
6. Check students' times for each leg of the trip.
 - a. 11:00 A.M.
 - b. 7:00 P.M.
 - c. 12:00 noon
 - d. 3:00 P.M.
 - e. forward

Thinking Critically:

There are 24 standard time zones in the world because it takes 24 hours for the earth to rotate once on its axis.

TIME TO EXPLORE ANSWERS

The western part of our country is still asleep. The earth turns from west to east.

Name: _____

Jet Lag Journey



Use the maps on atlas pages 50–51 and 38–39 to answer the questions that follow.

1. When it is 1:00 A.M. in Miami, what time is it in Denver? _____
2. If you traveled east from Detroit to Boston, would the time change? _____
3. Is any part of Alaska in the same time zone as Hawaii? Explain. _____

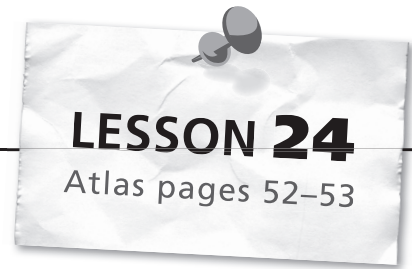
4. What might happen if a person in Anchorage, Alaska, telephoned a person in Atlanta at 11:00 at night, Alaska time? _____
5. If you left Chicago at 5:00 P.M. and flew to San Francisco on a 4-hour flight, what time would it be in San Francisco when you landed? _____
6. Imagine that you are a reporter for a national newspaper. Your job keeps you traveling constantly. Your itinerary is listed below. Check both maps and list the times you will be in each destination.
 - a. 8:00 A.M.: Leave Chicago and fly to Atlanta, a 2-hour flight. What time is it where you land? _____
 - b. 12:00 noon: Have lunch in Atlanta, interviewing people for an article. Leave for New York City on a 5:00 P.M. flight, which takes 2 hours. What time is it where you land? _____
 - c. 8:00 A.M.: Turn in your story to the newspaper and catch a 10:00 A.M. flight to Denver, a 4-hour flight. What time is it where you land? _____
 - d. 1:00 P.M.: Rent a car in Denver and drive to Cheyenne, Wyoming, which is a 2-hour drive. What time is it when you arrive in Cheyenne? _____
 - e. After spending the night in Cheyenne, you must drive to Lincoln, Nebraska. Will you set your watch forward or backward? _____



Thinking Critically

How many standard time zones do you think there are in the world? Why?

Determining Regions



Overview

The concept of region is introduced in this lesson. Students will identify the characteristics that make their state part of one of the regions studied.

Objectives Correlated to National Geography Standards

Students will learn:

- That people create regions to interpret the earth’s complexity (Standard 5)
- That regions can be determined by physical and/or human features (Standard 4)
- To use graphs to report information (Standard 1)

Curriculum Connections

Language Arts: Using adjectives

Math: Constructing and analyzing bar graphs

Materials Needed

- Bar graphs (atlas page 53)

Introducing the Lesson

Discuss the definition of the word “region” as being an area with the same characteristics. As a whole class, identify the various regions of your classroom—a computer region, student desk region, etc. To make sure students understand the concept, have them draw maps of the room’s regions. They should all agree on a fixed point in the room—such as the teacher’s desk—and put that at the top of their maps so that all of the maps have the same orientation.

Developing the Lesson

1. Invite the class to describe the physical and cultural features of their state. You may want to turn their attention to the maps of the United States in the previous section.
2. After some discussion, ask them to invent a region their state should be a part of. They can use descriptive words, such as “mountain” or “coastal” and locational words, such as “east” or “west.” Write their suggestions on the board. Make sure they understand that regions are arbitrary, that their state could probably fit within several different regions.
3. Have the class vote on the region’s name, then compare that to the one used in this atlas.
4. Have students compare the bar graphs on page 53. Point out that they show the areas and populations of each region. Discuss the regions’ sizes. Invite students to make comparisons, judging which regions are more densely populated and less densely populated than others.
5. Tell the class that there are many ways to determine regions and that they can be based on physical or human features or both.
6. Hand out Worksheet 24 and have the class answer the questions.

Assessing the Lesson

Point out the region that your state is a part of in this atlas. Ask the students to use all the descriptors they can think of that justifies that grouping, then write a paragraph entitled, “Why my state is part of the ____ Region.” (If you live in Alaska or Hawaii, have students explain your state’s unique geography that makes it a distinct region.)

WORKSHEET ANSWERS

1. The Southwest Region
2. The Southwest Region
3. Alaska
4. Northeast and Mid-Atlantic regions, because they have small areas but large populations.
5. Alaska is much larger in area, but smaller than Hawaii in population.
6. The Southeast, North Central, and Northeast regions all have seven states.

Thinking Critically:

The Southeast Region, because it is much smaller in land area.

TIME TO EXPLORE ANSWER

The Northeast has the highest population density. Alaska has the lowest.

Name: _____



Comparing Regions

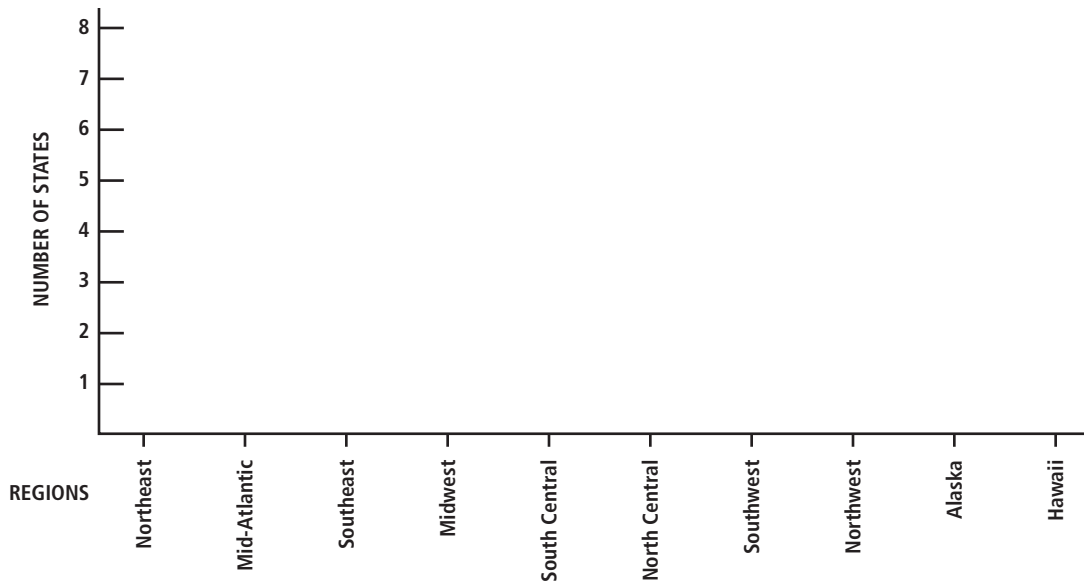
WORKSHEET 24

Use the map and graphs on atlas pages 52–53 to answer the following questions.

1. Which region has the largest population? _____
2. Which region is the largest in area? _____
3. Which region has the fewest people? _____
4. Which two regions have the highest population density? Explain. _____

5. Study the bars for Alaska and Hawaii. How do they compare in area? In population? _____

6. In the graph below, draw bars showing the number of states in each of the 10 regions. Which region(s) has (have) the most states? _____



Thinking Critically

The Southeast Region and the Southwest Region have about the same population. Which region has a higher population density? How can you determine this based on the information in the graphs?

Map Challenge



Overview

Students will analyze the locations of dense and sparse populations in the Northeast and play a game about locations to build mental maps of the region.

Objectives Correlated to National Geography Standards

Students will learn:

- To use maps and graphs to acquire and report information (Standard 1)
- To explain the population patterns in the Northeast (Standard 9)

Curriculum Connections

History: Understanding settlement patterns

Materials Needed

- Regions of the United States Map (atlas page 52)
- Northeast Region Political Map (atlas pages 55)

Introducing the Lesson

Have the class look at the map of the United States on page 52 of the atlas and locate the Northeast Region. Ask them to imagine that they must describe the location of that region to someone who is unfamiliar with the geography of our country. Discuss their ideas as a whole class.

Developing the Lesson

1. Direct students' attention to the political map of the Northeast on page 55 of the atlas. Invite students to describe the location of the largest cities. They should realize that all of these cities are within 100 miles of the Atlantic Ocean. Ask the class to consider the reason. They should realize that the Northeast was the location of some of the first colonies in America. People had come from Europe, so the coastal region along the Atlantic was a natural place to settle. The small cities located there grew into large cities over the years.
2. To construct mental maps of the Northeast, play a game using the information shown on the political map. Divide the class into two teams. Each team should write questions for the other team. Questions should focus on location, city and state relationships, and direction. Sample questions might be: "Boston is the capital of what state?" or "What is the state with a very long island extending into the Atlantic?" or "What state is north of Connecticut?" When the competition begins, make sure that each student on each team gets a chance to ask and answer questions. Students can look at the map on atlas page 55 while playing the game.
3. After playing the game, have students complete Worksheet 25.

Assessing the Lesson

While students are looking at the political map of the Northeast on atlas page 55, ask them various locational questions, such as "Which state is farthest north? South? East? West?" When they have mastered the geography of the region, have students draw a map of the Northeast without looking at a reference. Award points for state names, capital cities labeled, and accurate locations.

WORKSHEET ANSWERS

1. Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York
2. New York
3. Vermont, Rhode Island, New Hampshire, and Maine
4. Boston
5. New York, Vermont, New Hampshire, Maine
6. Students should realize that Maine and New York are the largest in area, but New York is by far the largest in population.

Thinking Critically:

Rhode Island has the highest population density, because it has a large number of people on the smallest area.

Name: _____

Comparing Areas and Populations

WORKSHEET 25

Use the map and bar graphs on atlas pages 54–59 to answer the questions below.

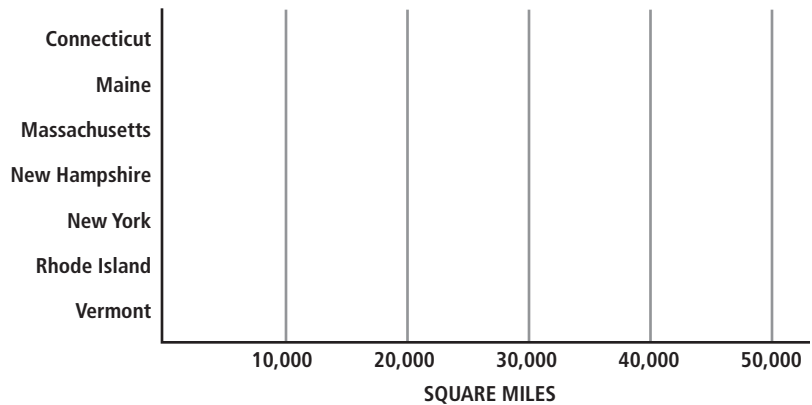
1. What states in the Northeast Region have coasts on the Atlantic Ocean?

2. Which state in the Northeast Region is the largest in population? _____
3. What four states in the Northeast Region are the smallest in population?

4. Which city is farther east, Boston or New York City? _____
5. Name the states in the Northeast Region that border Canada.

6. Use the data below to create a bar graph comparing the land areas of the states in the Northeast Region. Then compare the graph to the population bar graph on page 56. What conclusions can you draw?

Land Area	
Connecticut	4,845 square miles
Maine	30,862 square miles
Massachusetts	7,840 square miles
New Hampshire	8,968 square miles
New York	47,214 square miles
Rhode Island	1,045 square miles
Vermont	9,250 square miles





Thinking Critically

Which state in the Northeast Region might have the highest population density? Explain.

Advertising the Northeast



Overview

Students will learn about the physical geography of the Northeast and the economic activities that take place there by writing advertisements and playing charades.

Objectives Correlated to National Geography Standards

Students will learn:

- The physical and human characteristics of the Northeast (Standard 4)
- How physical systems affect human systems (Standard 15)

Curriculum Connections

Language Arts: Writing creatively

Drama: Playing charades

Introducing the Lesson

Have the class study the physical map on atlas page 58. Play a quick game with them to familiarize them with the physical features of the Northeast. As you say a word, such as “mountains” or “plains,” they must look at the map and say “yes” or “no” to indicate whether that feature is present in the Northeast.

Developing the Lesson

1. Have the students compare the physical map with the climate map on atlas page 56. Invite them to call out descriptive phrases of the Northeast that relate to its landforms and climate, such as “cool summers.” Write these on the board.
2. After you have a good collection of descriptions, divide the class into small groups and have them write advertisements enticing people to vacation in the Northeast. Discuss the features of the Northeast that would be the biggest draw for visitors.
3. As students are writing their ads, make sure they mention the kinds of industries that take place in the region as well. Focus students’ attention on the economies map on atlas page 57. Discuss how the major industries relate to the physical features of the region—for example, how tourism relates to mountain scenery.
4. To help students synthesize what they have learned about the Northeast, have them complete Worksheet 26.

Assessing the Lesson

Play charades to evaluate the lesson on the Northeast. Students can take turns acting out something, such as fishing, and other students can guess it and tell how it relates to the region. Make sure they cover not only physical features, but economic activities as well.

Materials Needed

- Northeast Region Physical Map (atlas page 58)
- Northeast Region Climate Map (atlas page 56)

WORKSHEET ANSWERS

1. About 30 degrees Fahrenheit
2. New York, Vermont, New Hampshire, Maine
3. New York, Connecticut, Rhode Island, Massachusetts, New Hampshire, Maine
4. New York, Connecticut, Rhode Island, Massachusetts, New Hampshire, Maine
5. Potatoes are grown and dairy cows are raised.
6. West to east
7. Make sure students relate their slogans to the geography of the Northeast.

Thinking Critically:

If the forests and lakes are harmed by acid rain, tourism may drop.

Name: _____



Inventing State Slogans

WORKSHEET 26

Use the maps and graphs on atlas pages 54–59 to answer the questions below.

1. What is the average monthly temperature for Boston in the coldest month of the year? _____
2. Based on the map on page 58, which states in the Northeast Region have mountains?

3. In which of the Northeast Region's states is fishing an important industry?

4. In which of the Northeast Region's states does manufacturing take place?

5. Describe the farming activities that take place in Maine.

6. If pollutants from the cities in the center of the country are contributing to acid rain in the Northeast, what direction are winds blowing? _____
7. In the spaces below, be creative and invent slogans for each of the states in the Northeast.

STATE	SLOGAN
CONNECTICUT	_____
MAINE	_____
MASSACHUSETTS	_____
NEW HAMPSHIRE	_____
NEW YORK	_____
RHODE ISLAND	_____
VERMONT	_____

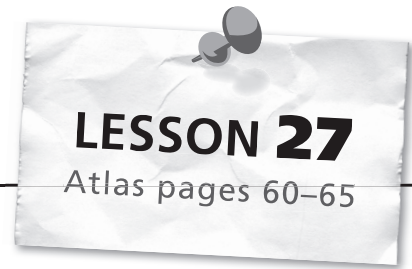
Thinking Critically

How do you think acid rain might be a threat to the economy of the Northeast? Explain.



**REGIONS OF THE UNITED STATES:
THE MID-ATLANTIC REGION**

Measuring Distances



Overview

Students will measure distances in order to become familiar with the geography of the Mid-Atlantic Region.

Objectives Correlated to National Geography Standards

Students will learn:

- How to analyze the spatial organization of people and places in the Mid-Atlantic Region (Standard 3)

Curriculum Connections

Math: Measuring distances

Introducing the Lesson

Discuss our nation's capital, Washington, D.C. and point out its location in the Mid-Atlantic Region. Ask the class to consider why our capital is not located in any state. They should realize that having the capital in a separate district keeps the 50 states equal in importance.

Developing the Lesson

1. To illustrate that the Mid-Atlantic is a relatively small region, have students use the bar scale to compare distances.
2. Divide the class into eight groups. Assign each group one of the eight cardinal and intermediate directions. Have each group measure from Washington, D.C. to the farthest point in the region in their assigned direction.
3. Quiz the groups about where the farthest points will be.
4. Compare the distances. Students will discover that the region is small. Point out that the longest distance could be covered by car in about a half day.
5. In order to become more familiar with the geography of the Mid-Atlantic Region, have the students complete Worksheet 27.

Assessing the Lesson

With the students' atlases open to the political map of the Mid-Atlantic Region on atlas page 61, play a Jeopardy-type game with the class to help them form mental maps of the region. Then play it again with their atlases closed. Give them statements such as, "The state that is west of Virginia." The students must call out their responses in question form, such as "What is West Virginia?"

Materials Needed

- Mid-Atlantic Region Political Map (atlas page 61)

WORKSHEET ANSWERS

1. Pennsylvania and New Jersey
2. Virginia, Maryland, Delaware, New Jersey
3. Pennsylvania
4. Delaware, because its population lives in a much smaller area than West Virginia
5. Newark, Trenton, Philadelphia, Wilmington, Baltimore, Annapolis, and Washington, D.C.
6. PENNSYLVANIA: Pittsburgh, ★Harrisburg, and Philadelphia
NEW JERSEY: ★Trenton, Atlantic City, and Newark
VIRGINIA: Norfolk and ★Richmond
WEST VIRGINIA:
★Charleston
MARYLAND: Baltimore and ★Annapolis
DELEWARE: ★Dover

Thinking Critically:

It is in a protected bay and harbor.

Name: _____



Matching Cities and States

WORKSHEET 27

Use the map and graphs on atlas pages 60–65 to answer the following questions.

1. What are the two states nearest the border with the Northeast Region? _____
2. What states border the Atlantic Ocean? _____
3. Which state in the Mid-Atlantic Region has the largest population? _____
4. Which state has a higher population density, West Virginia or Delaware? Explain.

5. “Megalopolis” is a term used for the continuous band of cities and urban areas stretching from Boston to New York City (in the Northeast Region) and on to our nation’s capital. What cities in the Mid-Atlantic Region might be considered part of this megalopolis?

6. Match the following cities and towns to the states they belong to. Draw lines connecting them. Put a star next to those cities that are capitals of their states.

CITIES

- Pittsburgh
- Trenton
- Norfolk
- Charleston
- Harrisburg
- Baltimore
- Atlantic City
- Dover
- Philadelphia
- Newark
- Annapolis
- Richmond

STATES

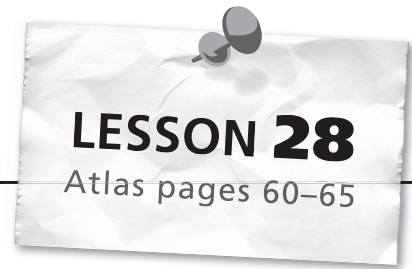
- Pennsylvania
- New Jersey
- West Virginia
- Virginia
- Maryland
- Delaware



Thinking Critically

Annapolis, Maryland, is the home of the United States Naval Academy. Why do you think it is located there?

Making a Model



Overview

Students will make a model to illustrate the physical geography of the Mid-Atlantic.

Objectives Correlated to National Geography Standards

Students will learn:

- The physical and human characteristics of the Mid-Atlantic Region (Standard 4)
- How physical geography affects economic decisions and settlement patterns (Standard 15)
- How people in the Mid-Atlantic modified the physical environment (Standard 14)

Curriculum Connections

Science: Making a model

Language Arts: Writing postcards

Introducing the Lesson

Encourage students to use all visuals available to them by having them turn to atlas pages 60–65 in their atlases. At a glance, have them scan the photos, maps, and diagrams. Ask them to describe the region based on what they see.

Developing the Lesson

1. Discuss the physical geography of the Mid-Atlantic, particularly the ridge of mountains that runs through the region.
2. To understand how the physical geography shapes the region, involve students in a quick project.
3. Have them take a sheet of paper and label the upper left corner “north,” the upper right corner “east,” etc. Then they should fold their sheets in half lengthwise. The peak that forms will represent the Appalachian Mountains.
4. Next, along the right-hand side of the paper about an inch from the edge, have them make another fold lengthwise. This time they will be folding the right edge toward the top middle line.
5. Have students label the physical features. The slope to the east of the center line represents the Piedmont. The line nearest the right edge represents the Fall Line. The flat right panel represents the Atlantic Coastal Plain.

Assessing the Lesson

Call out various locations in the Mid-Atlantic Region and have students respond by identifying something about its physical features. For example, for “western Pennsylvania” students will call out “Appalachian Mountains.” For “Delaware” they might say “east of the Fall Line.”

Materials Needed

- Maps and graphics (atlas pages 60–65)

WORKSHEET ANSWERS

1. Along the Appalachian Mountain range
2. Throughout the region, except for the highest elevations in the mountains
3. The temperatures are in the high 30s and there are 2–4 inches of precipitation per month.
4. So they could use the power of the waterfalls to power the machines.
5. Accept all answers that explain the geography of the region accurately.

Thinking Critically:

Because the Fall Line created a natural place to generate power, factories were built there, and that brought settlements to the same areas.

Name: _____



Writing Postcards from the Mid-Atlantic Region

Use the maps and graphs on atlas pages 60–65 to answer the following questions.

1. Where does most of the mining take place in the Mid-Atlantic Region? _____
2. In what part of the region does farming take place? _____
3. Describe the weather in Richmond, Virginia, in January. _____
4. Why were factories located along the Fall Line? _____

5. Imagine you have just moved to one of the states in the Mid-Atlantic Region. In the space below, write a postcard to a friend describing the geography of your state.

		<div data-bbox="1209 940 1349 1102" style="border: 1px solid black; width: 86px; height: 77px; margin: 0 auto;"></div>



Thinking Critically

How did the physical geography of the Mid-Atlantic Region affect its settlement patterns?

Travel Report

LESSON 29

Atlas pages 66–71

Overview

Students will become reporters in order to master the political geography of the Southeast Region.

Objectives Correlated to National Geography Standards

Students will learn:

- How to analyze the spatial organization of people and places in the Southeast Region (Standard 3)

Curriculum Connections

Language Arts: Conducting research

Math: Constructing graphs

Introducing the Lesson

Discuss some of the impressions the class has about the Southeast. Write their ideas on the board. Encourage them to look for regional commonalities, such as a warm climate, in order to complete the phrase, “The Southeast Region is _____.”

Developing the Lesson

1. Divide the class into seven groups and assign each group one of the states in the Southeast Region.
2. Tell them that their job is to use the Internet to research information about their state, then report back to the whole class. One student in each group should be assigned to be the reporter; others can create cue cards and visuals to display during the newscast.
3. To make the activity like a real news story, have each group choose a particular place or event in their state, such as a shuttle launch at Cape Canaveral, Florida.
4. Give students time to conduct their research and make their presentations.
5. Have students complete Worksheet 29.

Assessing the Lesson

Have students play a “Who am I?” game in order to evaluate their knowledge of the political geography of the Southeast Region. They can take turns offering clues to their identities, such as “I am a city on the southeast coast of Florida. Who am I?”

WORKSHEET ANSWERS

1. Tennessee
2. Florida
3. Florida
4. Key West
5. The Mississippi River forms the western boundaries of Mississippi and Tennessee.
6. Alabama: 0 cities;
Florida: 3 cities (Jacksonville, Miami, Tampa);
Georgia: 1 city (Atlanta);
Mississippi: 0 cities;
North Carolina: 2 cities (Charlotte and Raleigh);
South Carolina: 0 cities;
Tennessee: 2 cities (Memphis and Nashville)

Thinking Critically:

Most states in the region are predominantly rural. Florida, North Carolina, Georgia, and Tennessee are the only states with cities over 250,000.



Where Are the Largest Cities?

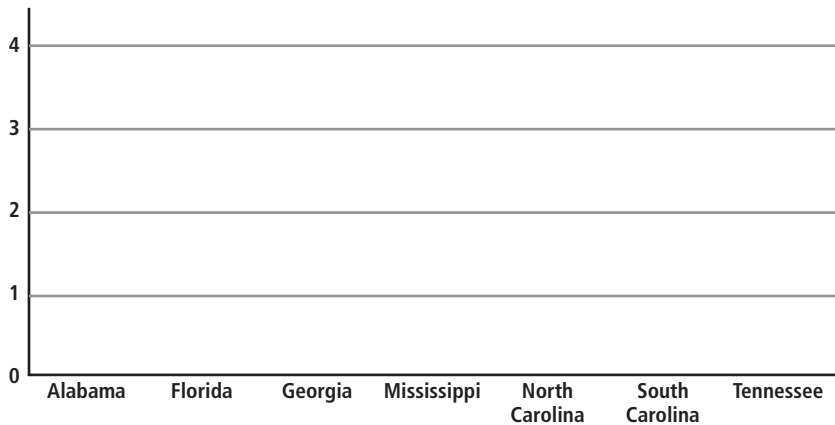
WORKSHEET 29

Use the maps and graphs on atlas pages 66–71 to answer the questions below.

1. Name the state(s) in the region that is (are) not located on an ocean or gulf. _____
2. What state could be called a huge peninsula? _____
3. What state has coasts on both the Atlantic Ocean and the Gulf of Mexico? _____
4. Name the town that is the southernmost point in the Southeast Region. _____
5. What physical feature forms the western boundary of two of the states?

6. In the graph below, draw bars showing the number of cities with populations over 250,000 in each Southeast Region state. Note that some state capitals might fall into this category. Since the same symbol is used for all state capitals regardless of population, the populations of the seven state capitals are provided below.

Number of cities with populations over 250,000



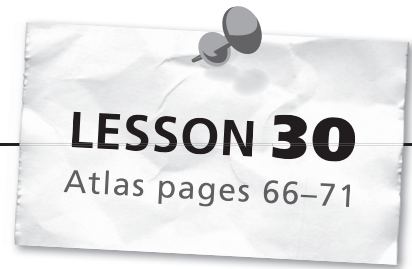
State capital	Population
Montgomery, Alabama	208,182
Tallahassee, Florida	182,965
Atlanta, Georgia	432,427
Jackson, Mississippi	175,561
Raleigh, North Carolina	416,468
Columbia, South Carolina	130,591
Nashville, Tennessee	609,644



Thinking Critically

Based on the graph above and the population graph on page 68 in the atlas, what conclusions can you draw about population and urban and rural areas of the seven states in the Southeast Region?

Planning a Trip



Overview

Students will complete a climate map of the Southeast and make judgments about how the climate affects people’s choices.

Objectives Correlated to National Geography Standards

Students will learn:

- The physical and human characteristics of the Southeast Region (Standard 4)
- How physical systems affect people’s decisions (Standard 15)

Curriculum Connections

Science: Understanding weather patterns

Introducing the Lesson

Have students study the physical map on atlas page 70 and describe the kinds of landforms found in the Southeast. They should realize that much of the land consists of low, flat plains along the Atlantic coast and the Gulf of Mexico. With the exception of the Great Smokies, most of the rest of the region is made up of hills relatively low in elevation.

Developing the Lesson

1. Have students complete Worksheet 30 in order to lay a foundation for the following activity.
2. Involve the class in planning a trip to the Southeast.
3. Allow students to pick their own destinations anywhere in the region, but make sure all the states are represented in the class.
4. Students should refer to the climate map they created (see question 4 on Worksheet 30), as well as the maps and graphs on atlas pages 66–71.
5. Instruct students to make three lists: (1) the kind of clothes they will pack, (2) the activities they will participate in while they’re visiting, and (3) the kinds of sights they will see.
6. Make sure they also consider the time of year they will visit. Check their work against the maps and graphs in this section.

Assessing the Lesson

Write the names of the seven states on the board. Have students call out descriptions, such as “rainy in winter,” that should be added underneath each state. Check for accuracy as you go.

Materials Needed

- Southeast Region Physical Map (atlas page 70)
- Maps and graphics (atlas pages 66–71)

WORKSHEET ANSWERS

1. The weather is warm for most of the year, but the region also lies in the path of hurricanes.
2. Places where there are forests and farms
3. Tennessee
- 4.–5. Check students’ maps for accuracy.
6. Oranges require a warmer climate, so they are grown farther south than cotton.

Thinking Critically:

Yes, because Florida is very flat, so the wind from hurricanes sweeps across the whole state.

Making a Climate Map

Use the maps and graphs on atlas pages 66–71 to answer the questions below.

1. How is the weather in the Southeast both good and bad? _____

2. What do the stripes represent on the economies map? _____
3. Because of its location, what state in this region might be the most protected from hurricanes? _____
4. Use the outline map below to create a climate map of the Southeast Region. The only place that has a tropical climate is the southern tip of Florida. The rest of the region is warm and rainy all year. Use two colors or patterns to represent the two climate regions.

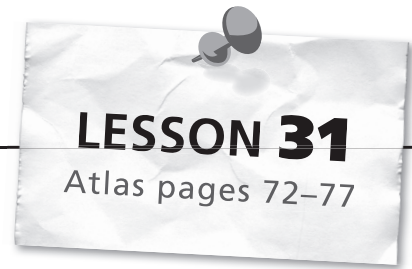
5. When your climate map is complete, add symbols to show where cotton and oranges are grown.
6. Why do you think cotton and oranges are not grown in the same areas?



Thinking Critically

Do you think Florida's physical geography makes hurricanes more dangerous? Explain.

Orienteering Through the Midwest



Overview

Students will participate in an orienteering activity in order to learn the political geography of the Midwest Region.

Objectives Correlated to National Geography Standards

Students will learn:

- How to use maps to acquire and report information from a spatial perspective (Standard 1)

Curriculum Connections

Math: Using grids

Introducing the Lesson

Have the students check the political map on atlas page 73 as you randomly name states. Ask students to call out “yes” or “no” indicating whether that state is part of the Midwest. Point out the Upper Peninsula of Michigan and make sure the class realizes that it is not a separate state, but a part of Michigan.

Developing the Lesson

1. Involve the class in an orienteering activity using the political map on atlas page 73.
2. Tell students that you are going to give them a series of directions from a starting point, and they must follow directions and determine the end point.
 - a. Start in Superior, Wisconsin.
 - b. Go south along the border between Minnesota and Wisconsin. You will come to a state boundary to the east. What state is it? (Illinois)
 - c. Follow the state boundary east until you arrive at one of the five Great Lakes. What is the name of that lake? (Lake Michigan)
 - d. Follow the lake shore south until you come to the biggest city in the region. What is that city? (Chicago)
 - e. Go to the place where the Ohio River flows into the Mississippi. What states are located there? (Illinois, Kentucky, Missouri)
 - f. Follow the Ohio River upstream until you come to a city with a population between 250,000 and one million. Where are you? (Louisville, KY) What state is to your north? (Indiana)
 - g. Go to the capital of Kentucky and name it. (Frankfort)
 - h. Go north to another city on the Ohio River in a neighboring state. This city has a population between 250,000 and 1 million. Name that city. (Cincinnati, OH)
 - i. Head north until you reach a state capital that starts with the letter “L.” (Lansing, MI)
 - j. Go east until you enter another country. What country is it? (Canada)

Assessing the Lesson

Change roles in the orienteering experience. Have the students take turns giving directions, following routes, and finding destinations. Make sure they use lakes, rivers, directions, and city references when giving out clues.

Materials Needed

- Midwest Region Political Map (atlas page 73)

WORKSHEET ANSWERS

1. Illinois and Ohio
2. Superior, Huron, Erie
3. The Mississippi River
4. The Ohio River
5. Ohio
6. a. Columbus, Ohio
b. Michigan and Wisconsin
c. Springfield, Illinois
d. Lake Superior
e. The Door Peninsula
f. Indianapolis, Indiana

Thinking Critically:

Wisconsin and Michigan. Population tends to be concentrated in the southern parts of these states, because the climate is a little warmer there.

Name: _____



Using Grids to "Tour" the Midwest

Use the map and graphs on atlas pages 72–77 to answer the questions below.

1. What two states have populations over 10 million? _____
2. Which Great Lakes form part of the border between the Midwest Region and Canada?

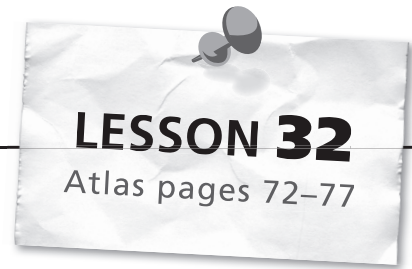
3. What water body forms the western boundary of the region? _____
4. What feature forms Kentucky's northern border? _____
5. What state in the Midwest Region is the farthest east? _____
6. Using the two kinds of grids (latitude-longitude and letter-number), identify the locations (cities or states) on the Midwest Region Political Map on page 73 of the atlas.
 - a. Capital city at 40°N latitude, 83°W longitude _____
 - b. States in A-2 _____
 - c. Capital city nearest 40°N latitude, 90°W longitude _____
 - d. Northernmost Great Lake in A-2 _____
 - e. Peninsula in Lake Michigan in A-2 _____
 - f. Another capital city that is at the same latitude as Springfield, Illinois _____



Thinking Critically

What two states are farthest north in the Midwest Region? Make a judgment about where population is concentrated in those two states. What reason might explain this pattern?

Landform Formations



Overview

Students will investigate the reasons behind some of the physical and human features in the Midwest and present their findings to the class.

Objectives Correlated to National Geography Standards

Students will learn:

- The physical processes that shaped the Great Lakes and fertile plains of the Midwest. (Standard 7)
- How human actions modified the physical environment in the Midwest. (Standard 14)

Curriculum Connections

Science: Analyzing landforms formation

Introducing the Lesson

Ask the class, “Have you ever wondered why the Great Lakes formed where they did?” Tell them that there are reasons why landforms and water bodies are located in certain places. In this lesson, they will discover some of those reasons.

Developing the Lesson

1. Have students read page 77 in the atlas. Discuss the Ice Age glaciers as the factor that caused the Great Lakes to form. Tell them that the fertile soil in the Midwest is mainly due to the glaciers. The ground-up rocks and minerals that the glaciers left behind form the basis of the region’s exceptionally rich soil.
2. Divide the class into five groups. Assign each group one of the following topics:
 - a. Great Lakes
 - b. Mississippi and Ohio Rivers
 - c. Fertile soil of the Midwest
 - d. Farming in Wisconsin and Michigan
 - e. Farming in Illinois, Indiana, and Ohio
3. Allow the groups time to research their topics. Then ask them to make brief presentations to the rest of the class about the reasons behind the formation of these physical features or important farming regions.

Assessing the Lesson

In order to ascertain students’ understanding of the content, have them respond to the following true/false questions:

- a. The Great Lakes formed from glaciers in mountains. (F)
- b. The farming region in Wisconsin and Michigan is limited by its northern climate. (T)
- c. The Mississippi River flows into the Great Lakes. (F)
- d. Illinois, Indiana, and Ohio can grow more crops than states in the northern part of the region because they have a warmer climate and longer growing season. (T)

WORKSHEET ANSWERS

1. The glaciers plowed across the land and smoothed its surface. They also scoured out huge basins.
2. The water filled in the basins, forming the Great Lakes.
3. The northern part of the region has a continental climate with longer and colder winters and shorter summers. The southern part has a moderate climate with longer summers.
4. Some crops, such as corn, are better suited for warmer weather.
5. Check students’ illustrations for accuracy.

Thinking Critically:

There would be no Great Lakes and the land would not be as flat as it is.

Name: _____



Looking Back in Time

Use the maps and graphs on atlas pages 72–77 to answer the questions below.

1. How did the Ice Age glaciers affect the land underneath them? _____

2. When the glaciers melted, what happened to most of the water? _____

3. Within the Midwest Region, how does the climate change from north to south? _____

4. How do differences in climate affect differences in crops that can be grown? _____

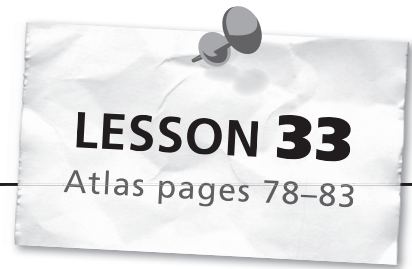
5. Use the space below to draw a sequence of pictures showing the formation of a physical feature, such as a flat plain or a lake, in the Midwest Region. Label all of the parts of the physical feature and add captions that explain how you think it was formed. Number the pictures.



Thinking Critically

If there had been no Ice Ages, how do you think the physical geography of the Midwest would look today? Explain.

Planning a Route



Overview

To master the political geography of the North Central Region, students will plan various routes through it.

Objectives Correlated to National Geography Standards

Students will learn:

- How to analyze the spatial organization of people and places in the North Central (Standard 3)
- The distribution of population in the North Central (Standard 9)

Curriculum Connections

Math: Using a bar scale

Math: Drawing a diagram to scale

Introducing the Lesson

Have students look at the map on atlas page 79 and name the states that make up the North Central Region. Ask where they would be if they went even farther north (in Canada). Make sure they realize that the North Central is a continuation of the plains that make up the Midwest Region.

Developing the Lesson

1. To help students familiarize themselves with the region, have them plan various routes. Tell them that they must consider rivers as one means of travel. They should use the map on atlas page 79.
2. Divide the class into four groups. Assign each group one of the following:
 - a. If you wanted to go from Topeka to International Falls, traveling through Bismarck, what states would you go through? (Kansas, Nebraska, South Dakota, North Dakota, and Minnesota)
 - b. If you didn't want to drive, fly, or take a train, what physical feature could you use if you wanted to go from Minneapolis, Minnesota, to St. Louis, Missouri? (Mississippi River)
 - c. What states would you travel through if you wanted to go in a straight line from north to south and visit only those states with fewer than 5 million people? (North Dakota, South Dakota, Nebraska, and Kansas)
 - d. What states would you travel through if you wanted to see the Gateway Arch in St. Louis and the Flint Hills, Sand Hills, and Black Hills? (Missouri, Kansas, Nebraska, and South Dakota)
3. Once the groups have made their decisions, review their answers with the rest of the class and discuss their choices.

Assessing the Lesson

To gain practice using a bar scale, have the groups measure the distances of their routes. Then use the following activity in a game show format to evaluate students' mastery of the geography of the North Central Region. Play "Which is nearer, which is farther?" Name points on the map and have students respond, either individually or in teams. A sample question might be, "Which is nearer Duluth, Kansas City or St. Paul?"

Materials Needed

- North Central Region Political Map (atlas page 79)
- Westward Expansion of the U.S., 1803–1860 Map (atlas page 115)

WORKSHEET ANSWERS

1. South
2. The Missouri River
3. No, these are straight lines that do not follow a physical feature.
4. South, downhill
5. Rapid City is higher in elevation.
6. Check students' work for accuracy.

Thinking Critically:

It would have been easier traveling southeast, because that is the direction the river flows.

Name: _____

Visualizing the Lay of the Land

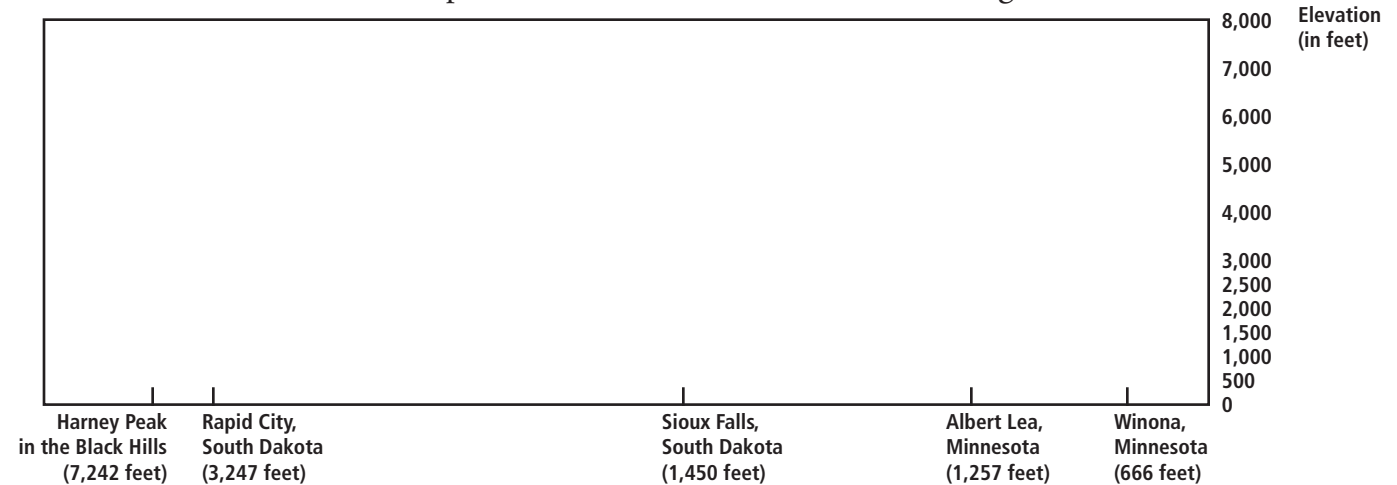


Use the maps and graphs on atlas pages 78–83 to answer the questions below.

1. What direction would you have to go if you went from Minnesota to Missouri? _____
2. What physical feature forms the eastern boundary of Nebraska? _____
3. Do any physical features form the western boundaries of North and South Dakota? Explain.

4. In what direction does the Mississippi River flow? _____
Why? _____
5. Which is higher in elevation, Rapid City, South Dakota or Minneapolis, Minnesota?

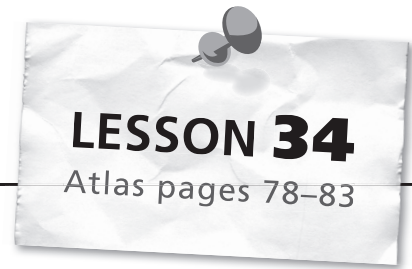
6. In the space below, draw a cross-section of what the land of the North Central Region would look like if you could slice it open from west to east. Begin by placing dots at the appropriate elevation for each of the five places listed. Then draw lines connecting the dots.



Thinking Critically

Lewis and Clark explored the Louisiana Territory along the Missouri River. Which part of their trip would have been easier: heading northwest on the river from St. Louis to the Dakotas, or returning southeast on the river from the Dakotas to St. Louis? Explain.

Earth Systems Role Play



Overview

Students will role-play factors related to climate.

Objectives Correlated to National Geography Standards

Students will learn:

- How the earth-sun relationship and elevation shape the patterns of the earth's surface (Standard 7)
- How physical systems affect human systems in the North Central Region (Standard 15)

Curriculum Connections

Science: Understanding factors that affect climate

Math: Finding patterns

Drama: Role-playing concepts

Introducing the Lesson

Ask the class, "How important is climate?" Engage them in a discussion focusing on how climate affects farmers' choices.

Developing the Lesson

1. Tell the class that there are several factors that affect climate. One is latitude. Another is elevation. For every thousand feet in elevation, the temperature drops approximately 3 degrees Fahrenheit. To demonstrate this point, divide the class into seven groups. Each group should make one of the following signs, doing their own math calculations.

Sea level = 90 degrees F

1,000 feet = (87) degrees F

2,000 feet = (84) degrees F

3,000 feet = (81) degrees F

4,000 feet = (78) degrees F

5,000 feet = (75) degrees F

6,000 feet = (72) degrees F

2. Ask for a volunteer from each group; make sure that they are all different heights. Using their bodies as human temperature graphs, arrange them in height to represent the seven different elevations. Discuss how they represent the slope of the land in the North Central Region and the differences in temperature.

Assessing the Lesson

Have students look at the climate graphs of the North Central Region on atlas page 80. Ask them if they see a pattern. They should realize that winters in the north are longer and colder. Ask why (a higher latitude, farther from the Equator). Now ask students to see if they see a pattern on the economies map on atlas page 81. They should see that corn is grown at lower elevations where the climate is hotter; wheat is grown at higher elevation where the climate is cooler.

Materials Needed

- Climate graphs (atlas page 80)
- Economies Map (atlas page 81)

WORKSHEET ANSWERS

1. Temperatures in the 60s, with about 2 inches of rain each month
2. Temperatures in the high 70s, with 3–5 inches of rain each month
3. Tornadoes form when hot, humid air from the Gulf of Mexico collides with cool, dry air moving eastward from the Rocky Mountains.
4. Iowa, Kansas, Nebraska, South Dakota
5. It is located farther north where the climate is cooler, so fewer tornadoes occur there.
6. Most of the rivers flow to the east or southeast. They flow in these directions because the land is higher in the west and northwest than in the east and southeast.

Thinking Critically:

Because in winter there are few collisions of hot, humid air and cool, dry air.

Name: _____



Analyzing Physical Patterns

WORKSHEET 34

Use the maps and graphs on atlas pages 78–83 to answer the questions below.

1. What is the weather like in Rapid City, South Dakota, in the summer?

2. What is the weather like in Springfield, Missouri in the summer?

3. What causes tornadoes to form? _____

4. What states in the North Central Region are part of Tornado Alley?

5. Why do you think Tornado Alley does not extend into North Dakota?

6. The physical map on page 82 shows the North Central Region's major rivers. In what general direction(s) do most of these rivers flow? Explain why.

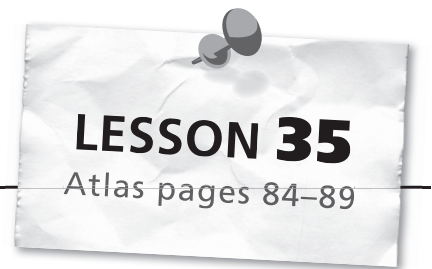


Thinking Critically

Tornadoes almost never occur in the winter. Why do you think that is?

**REGIONS OF THE UNITED STATES:
THE SOUTH CENTRAL REGION**

“20 Questions” Game



Overview

To learn the geography of the region, students will play “20 Questions” and measure distances in the South Central Region.

Objectives Correlated to National Geography Standards

Students will learn:

- How to use mental maps to organize information about people and places in the South Central (Standard 2)

Curriculum Connections

Language Arts: Formulating questions

Math: Comparing distances

Introducing the Lesson

Point out to the class that distances are very great in the South Central, particularly in our second-largest state of Texas. It would take a full day just to drive from the northernmost point in Texas to the southernmost point.

Developing the Lesson

1. In order to get students familiar with the geography of the South Central Region, play a game of “20 Questions.”
2. Choose a place in the South Central Region (a town, city, river, or other physical feature) and invite students to ask questions to try to zero in on the answer.
3. Make sure their questions are geographic, rather than just guesses. For example, they should focus on relative locations, such as proximity to rivers or the Gulf or mountains, and directions such as a place being north of or west of another place. A sample question might be, “Is this place within 50 miles of the Gulf of Mexico?”
4. Repeat the activity until you feel they have developed a mental map of the region.
5. After assessing the lesson, have the students complete Worksheet 35.

Assessing the Lesson

Have students participate in a Driving Trip Challenge. They must plan to visit all four capital cities in the South Central Region, as well as the region’s largest cities (over 250,000 people), but drive the fewest number of miles to accomplish their goal.

WORKSHEET ANSWERS

1. Texas
2. The Rio Grande
3. The Mississippi River
4. Texas and Louisiana
5. Oklahoma
6. Check the students’ charts for accuracy.

Thinking Critically:

Dallas and Fort Worth, Texas, share an airport because they are two large urban areas that are only 30 miles apart.

Name: _____



Making a Distance Table

WORKSHEET 35

Use the maps and graphs on atlas pages 84–89 to answer the questions below.

1. What state in the South Central Region has the most people? _____
2. What river separates Texas from Mexico? _____
3. What river forms the eastern boundaries of Arkansas and northern Louisiana? _____
4. What states in the South Central Region have ports on the Gulf of Mexico?

5. What state in the South Central Region is the farthest north? _____
6. Road atlases often include distance charts that show mileage between cities. Fill in the table below to create a distance chart. Measure the distances in straight lines using the map and bar scale on pages 84–85.

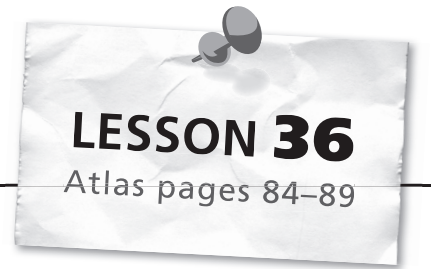
	Austin	Baton Rouge	Corpus Christi	Dallas	El Paso	Ft. Worth	Houston	Little Rock	New Orleans	Oklahoma City	Tulsa
Austin											
Baton Rouge											
Corpus Christi											
Dallas											
El Paso											
Ft. Worth											
Houston											
Little Rock											
New Orleans											
Oklahoma City											
Tulsa											



Thinking Critically

What two cities with populations greater than 250,000 in the South Central Region might share an airport? Why?

“Where Are You Now?” Questions



Overview

Students will write questions about the South Central Region in the form of radio stumpers, depicting different places and geographic features.

Objectives Correlated to National Geography Standards

Students will learn:

- How to use maps to acquire and report information from a spatial perspective (Standard 1)
- The physical and human characteristics of places in the South Central (Standard 4)

Curriculum Connections

Language Arts: Writing questions

Math: Making Venn diagrams

Introducing the Lesson

Discuss the similarities and differences of the various parts of the South Central Region. Make sure students understand how the land and climate change as you head east to west.

Developing the Lesson

1. Tell the class that radio stations often have “Where are you now?” quizzes. Have students write “Where are you now?” stumpers in order to reinforce what they have learned about the South Central Region.
2. Students can work in small groups to write questions that include locational and geographic information. A sample question might be: “You are standing in a place that is low in elevation where the Red River meets the Mississippi River. What state are you in now?” (Louisiana)
3. After they have written their questions, ask each group to take turns trying to stump their classmates.
4. You might want to have atlases open for the first round of “Where are you now?” Then have students close their atlases and play again. This round can be called “Double Stumper.”

Assessing the Lesson

Have students write a paragraph summarizing the geography of the South Central Region. Instruct them to discuss the region from north to south and again from east to west. The paragraph should illustrate the patterns present in the region.

WORKSHEET ANSWERS

1. All of them
2. Oklahoma and Texas
3. In the east
4. Rio Grande
5. Animals don’t need as much water as crops do.
6. Check students’ Venn diagrams for accuracy. Oklahoma has more in common with Texas.

Thinking Critically:

Oil is found beneath the floor of the Gulf of Mexico. It is a valuable resource, so it pays to drill even in difficult locations.

TIME TO EXPLORE ANSWER

The map suggests that an inland sea might have existed in the South Central Region millions of years ago.

Name: _____

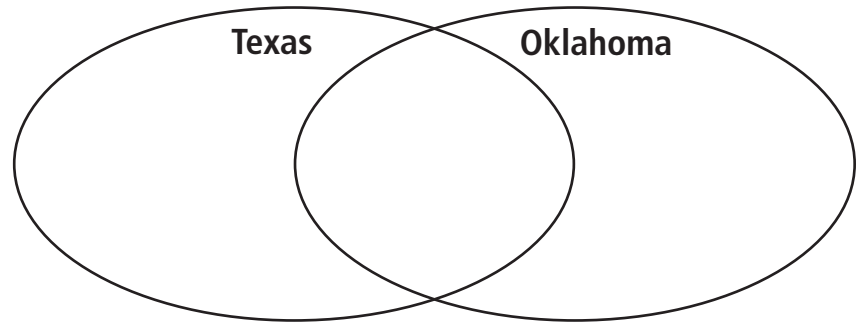
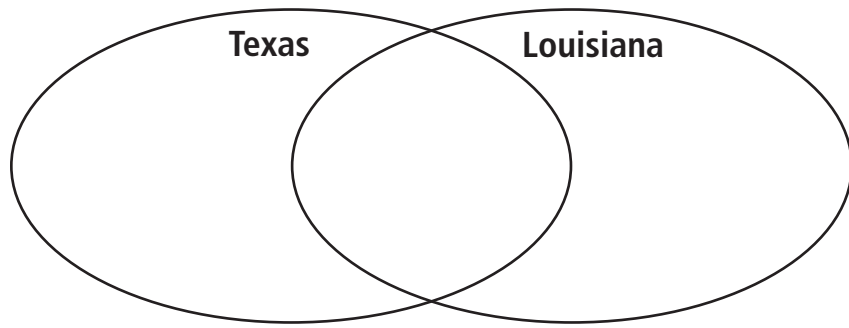


Making Comparisons with Venn Diagrams

Use the maps and graphs on atlas pages 84–89 to answer the questions below.

1. What states in the South Central Region have oil fields? _____
2. What states have elevations that are higher than 2,000 feet? _____
3. Is the South Central Region rainier in the east or in the west? _____
4. What river in the South Central Region forms a boundary between the United States and another country? _____
5. Why does grazing take place where the climate is drier? _____

6. Complete the Venn diagrams below. In the places where the ovals overlap, write all the things the two states have in common. Write their differences in the other parts of the ovals. Which state has more in common with Texas: Louisiana or Oklahoma? _____



Thinking Critically

Why do you think companies drill for oil in the Gulf of Mexico?

Understanding Population Density



Overview

Students will judge the settlement patterns of the Southwest by looking at population density figures.

Objectives Correlated to National Geography Standards

Students will learn:

- The characteristics and distribution of populations in the Southwest (Standard 9)
- How to apply geography to interpret the present and plan for the future for a city like Las Vegas (Standard 18)

Curriculum Connections

Math: Making predictions; Understanding population density calculations

Introducing the Lesson

Tell the class that the Southwest Region is huge. Distances are very great from one city to the next. Explain that in this lesson they are going to learn how geographers calculate population densities.

Developing the Lesson

1. Provide students with the population figures and areas for each of the six states in the region.
2. Tell them that the population density of each state is calculated by dividing the area by the number of people.
3. Write the states' areas on the board. Looking at the figures, ask students to predict the state with the highest population density, or the most people per square mile. Provide them with the density figures. Discuss the differences.

State	Land Area	Population Density
California	155,959 sq. mi.	232 people per sq. mi.
Nevada	109,826 sq. mi.	22 people per sq. mi.
Utah	82,144 sq. mi.	30 people per sq. mi.
Arizona	113,625 sq. mi.	52 people per sq. mi.
Colorado	103,718 sq. mi.	45 people per sq. mi.
New Mexico	121,356 sq. mi.	16 people per sq. mi.

4. Ask students: If many more people move to Nevada, will the population density figure get larger or smaller? (larger)
5. Ask if that would mean that people would be spread evenly all across the state. (No) Have students study the physical and political maps and see if they can draw conclusions about places where most people do not live (in deserts, in the Great Basin, in some mountainous areas).

Assessing the Lesson

To make sure students understand the fallacy of population density figures, show them how to calculate the population density of Las Vegas. It has a population of 517,000 and an area of 83 square miles. Discuss how that figure compares to the density figure for Nevada.

WORKSHEET ANSWERS

1. California
2. Utah has the fewest; California has the most
3. Approximately 300 miles
4. Sierra Nevada, Rocky Mountains
5. Accept all reasonable locations that have a source of water and a large enough population to support a golf course.

Thinking Critically:

Four Corners is located where four states meet: Utah, Colorado, New Mexico, and Arizona.

Name: _____

Choosing the Best Location



WORKSHEET 37

Use the maps and graphs on atlas pages 90–95 to answer the questions below.

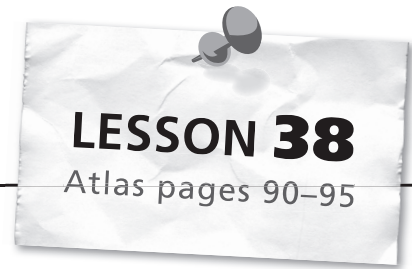
1. Which state in the Southwest Region has the largest population? _____
2. Which state in the Southwest Region has the fewest cities with over 250,000 people, not counting capital cities? _____
Which state has the most? _____
3. What is the approximate distance from the capital of Colorado to the capital of New Mexico? (Round to the nearest hundred.) _____
4. What mountain ranges would you have to cross to go from the capital of Colorado to the capital of California? _____
5. Suppose you were working with a group of people who wanted to establish a huge new golf course somewhere in the Southwest Region. In the space below, draw the state where you will locate your golf course and mark its location. Then explain why you chose that location, using geographic information to support your choice.



Thinking Critically

There is a place in the Southwest called “Four Corners.” Where do you think that might be located?

Museum of the Southwest



Overview

Students will create exhibits about all the states in the Southwest.

Objectives Correlated to National Geography Standards

Students will learn:

- The physical and human characteristics of places in the Southwest (Standard 4)
- How to apply geography to interpret present conditions of the Southwest (Standard 18)

Curriculum Connections

Art: Creating displays

Language Arts: Researching information

Language Arts: Writing signage

Introducing the Lesson

Tell the class that the Southwest is a popular tourist destination. Have them study the visuals on atlas pages 90–95 and see if they can figure out the reasons why it is such a draw.

Developing the Lesson

1. Divide the class into six groups and assign each group one of the states in the Southwest Region.
2. Tell them that their task is to create state exhibits for a mini-museum that focuses on the Southwest Region.
3. Members of each group will have to determine who will be responsible for the following jobs: research, collection of visuals to display, writing of signage, exhibit design.
4. Students can download images from the Internet or use photos from old magazines.

Assessing the Lesson

Once students have assembled their exhibits, invite the groups to present their creations to the rest of the class. They might want to name their museum and invite parents or other classrooms to visit their museum.

Materials Needed

- Maps and graphics (atlas pages 90–95)

WORKSHEET ANSWERS

1. Lack of water
2. No, because the region is very dry.
3. Phoenix, Mesa, Tucson, Las Vegas, Los Angeles, Long Beach, Riverside, Anaheim, Santa Ana, San Diego, Mexicali
4. Mostly warm and dry
5. In the central part of the state between the Sierra Nevada and the Coast Ranges
6. Check students' brochures for accuracy.

Thinking Critically:

Canyons were formed by rivers that eroded the rock walls and carried the rocks downstream.

Designing a Brochure

Use the maps and graphs on atlas pages 90–95 to answer the questions below.

1. What do you think the biggest problem is that faces people of the Southwest?

2. Other than California, would you say that the Southwest Region is a farming region? Explain.

3. Compare the political map on atlas pages 90–91 with the maps on atlas pages 94–95. Name at least five major cities with populations over 250,000 that might depend on the water from the Colorado River.

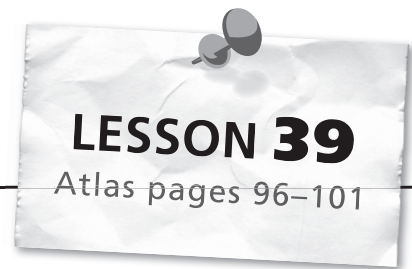
4. How would you describe the climate of most of the Southwest? _____
5. Where does most of the farming take place in California? _____
6. Every museum needs a brochure to bring in visitors. A brochure tells the name of the museum and tries to attract people to visit. Using a separate sheet of paper, design a brochure for a Museum of the Southwest. Make sure its message is clear and its design is eye-catching.



Thinking Critically

Canyons are everywhere in the Southwest. How do you think they formed?

Travel Agents of the Northwest



Overview

Students will plan a trip itinerary through the Northwest Region, making sure that the distances covered are realistic.

Objectives Correlated to National Geography Standards

Students will learn:

- How to analyze the spatial organization of people, places, and environments in the Northwest (Standard 3)

Curriculum Connections

Language Arts: Writing itineraries

Math: Calculating distances and time traveled

Math: Drawing cartograms

Introducing the Lesson

Have the students look at the map, graphs, and photographs on atlas pages 96–101. Using those visuals, ask students to describe the Northwest Region. Make sure they refer to locations and to physical and human features in their discussion.

Developing the Lesson

1. Divide the class into small groups and tell them that they are going to become travel agents and must plan a trip in the Northwest Region. They can choose their own routes and destinations and can visit one state or several states.
2. Regardless of their itinerary, they must follow the guidelines below:
 - a. They must plan their trip to last seven days, which does not count traveling to and from the region.
 - b. They must assume they will be driving within the region. Every 100 miles takes two hours driving time, which includes scenery stops. Traveling 100 miles through mountains takes three hours.
 - c. They must visit at least one city. This can be a capital or a city over 250,000 people.
3. Once students have planned their trip, have them write an itinerary that includes towns and cities, physical features, and mileage covered each day.
4. Along with the itinerary, students should sketch a simple map of the Northwest Region with their route indicated.

Assessing the Lesson

Invite the groups to present their itineraries to the class. Others should be following carefully to make sure the distances covered are accurate and realistic in a week's time. When everyone has had a turn, debrief about the Northwest Region—its size, its physical features, and its population density.

Materials Needed

- Maps and graphics (atlas pages 96–101)

WORKSHEET ANSWERS

1. Seattle, Washington; Portland, Oregon
2. Coast Ranges, Cascade Range, Blue Mountains, Salmon River Mountains, Bitterroot Range, Rocky Mountains, Absaroka Range, Bighorn Mountains, Wind River Range; most run north and south
3. Washington, Idaho, Montana
4. Washington and Oregon
5. Check students' maps for accuracy. Washington should be the largest state; Wyoming should be the smallest.

Thinking Critically

Washington has the highest population density because it has the largest population but the smallest area. Montana has the lowest population density because it has the smallest population but the largest area.

Name: _____



Drawing Cartograms

WORKSHEET 39

Use the maps and graphs on atlas pages 96–101 to answer the questions below.

1. Excluding capitals, name the cities in the Northwest Region that have populations over 250,000. In what states are they located?

2. Name all the mountain ranges in the Northwest Region you can find on the map on page 100 and tell what direction they run. Describe the pattern.

3. What states in the Northwest Region border Canada?

4. What states in the Northwest Region border the Pacific Ocean?

5. Cartograms are maps in which shapes are recognizable, but the sizes depend on the quantities of what you want to show. On a separate sheet of paper, draw a cartogram of the five states in the Northwest Region that shows their populations, based on the graph at the top of page 98. The sizes of the states should correspond to their populations.

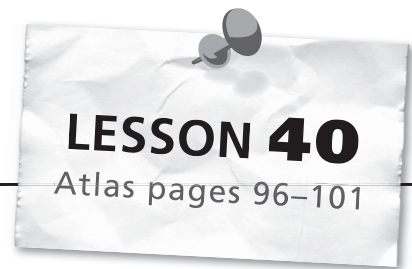
[Hint: The state with the largest population will be the largest state on your cartogram.]



Thinking Critically

Judging from the map and the graphs, which state in the Northwest Region do you think has the highest population density? Which do you think has the lowest? Explain.

Rain Shadow Role Play



Overview

Students will role-play the rain shadow effect and describe how it applies to the Northwest Region.

Objectives Correlated to National Geography Standards

Students will learn:

- How mountains and wind direction affect climate patterns in the Northwest (Standard 7)

Curriculum Connections

Science: Understanding the rain shadow effect

Drama: Role playing

Language Arts: Writing journal entries

Introducing the Lesson

Tell the class that the geography of the Northwest Region is varied in weather, climate, physical features, and in the kinds of jobs people do. Have them scan the visuals on pages 96–101 and offer examples that support this idea.

Developing the Lesson

1. Ask students to study the precipitation map and physical map of the region on atlas pages 100–101. Ask if they notice a pattern in the climates.
2. Now have them describe the climates as shown on the climate graphs on atlas page 98. Which are rainier? (The ones near the Pacific coast.)
3. Tell the students that mountains affect climates in a huge way. Have them read the feature titled “The Rain Shadow Effect” on atlas page 101.
4. To make the point, involve students in a role play.
 - a. Determine “North” in the classroom.
 - b. Ask for three volunteers to role-play mountains. They will be the Cascade Range in Washington and Oregon. Instruct them to form a line running north to south.
 - c. Get another student to role-play air. Tell students that in this region, wind generally blows from west to east, but coming off the Pacific Ocean, it is loaded with moisture. Have that student pretend to be carrying a huge quantity of rain over his/her head.
 - d. When the “air” blows into the Cascades, it rises and is forced to drop all of its rain on the west side of the Cascades. Have the student drop his hands from over his head.
 - e. After dropping its rain, the “air,” now without moisture, blows eastward, creating a rain shadow.

Assessing the Lesson

Ask students to summarize the rain shadow effect and explain why the coast of Washington and Oregon has a very wet climate. Focus their attention on the economies map on atlas page 99. Have them point out those industries that are affected by climate and follow the same patterns.

Materials Needed

- Northwest Region Political Map (atlas page 100)
- Annual Precipitation Map (atlas page 101)
- Southeast Region Political Map (atlas pages 66–67)
- Maps and graphics (atlas pages 96–101)
- Economies Map (atlas page 99)
- Climate graphs (atlas page 98)

WORKSHEET ANSWERS

1. In the eastern part of the region
2. In the driest areas
3. In Washington and Oregon where it is mountainous and the climate is wetter.
4. Washington
5. East
6. Make sure students’ journal entries reflect the distinct climate differences.

Thinking Critically

Because the Rocky Mountains block winds, which drop their moisture on the western slope of the mountains.

Name: _____



Diary of a Weather Reporter

WORKSHEET 40

Use the maps and graphs on atlas pages 96–101 to answer the questions below.

1. Where are the driest areas of the region located? _____
2. Where does grazing take place? _____
3. If you were a logging company, where would you locate your business? _____

4. If you wanted to see Mt. Rainier, what state would you visit? _____
5. Use a direction word to tell where the Great Plains are located in the region. _____
6. Imagine that you are a weather reporter who is taking a trip in July from the capital of Oregon to the capital of Wyoming. In the space below, write journal entries that describe the weather at various points along the way. There should be at least five entries in your journal.

DAY 1 _____

DAY 2 _____

DAY 3 _____

DAY 4 _____

DAY 5 _____

DAY 6 _____

DAY 7 _____

DAY 8 _____

DAY 9 _____

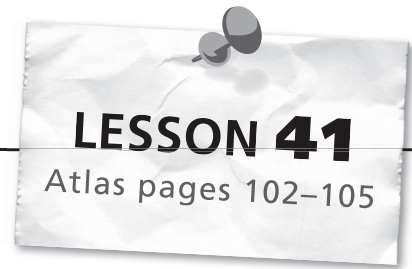
DAY 10 _____



Thinking Critically

Why do you think there is a region with heavy precipitation in northern Idaho? Explain.

Come Visit Alaska



Overview

Students will examine Alaska's climate regions and write an invitation to visit, choosing the best season and destination.

Objectives Correlated to National Geography Standards

Students will learn:

- The physical and human characteristics of places in Alaska (Standard 4)
- How plate tectonic movement affects Alaska's landforms (Standard 7)
- The characteristics and distribution of population in Alaska (Standard 9)
- How to apply geography to interpret Alaska's past (Standard 17)

Curriculum Connections

Language Arts: Writing letters

Science: Understanding climate patterns

Introducing the Lesson

Write the following words on the board and ask the students to read atlas pages 102–105 and study the visuals. Invite volunteers to tell some information about Alaska related to the topics on the board.

Volcanoes

Cold

Large

Population

Juneau

Developing the Lesson

1. Ask students to imagine that they are residents of Alaska and have a friend who wants to visit.
2. Assign students to write invitations to a friend. In the letter, they must advise the friend about Alaska's geography. They must recommend a destination, point out all the sights and possible activities, and describe the best time of year to visit there.
3. Make sure they explain their reasoning based on the maps and graphs on atlas pages 102–105.

Assessing the Lesson

Play a treasure hunt game in which you give students clues, such as "The treasure is hidden in a place that..." Students must listen to your clues, while studying the maps and graphs on atlas pages 102–105, to find the treasure. "Treasures" can be gold stars or some other kind of reward.

Materials Needed

- Maps and graphics (atlas pages 102–105)

WORKSHEET ANSWERS

1. Barrow, because it is much farther north
2. In the far north
3. The Aleutians are actually volcanoes that were formed as the Pacific Plate rammed under the North American plate.
4. Russia and Canada
5. In the continental and moderate climates, because the climate is warmer.
6. Check students' maps to make sure their illustrations are appropriate for the geography of Alaska.

Thinking Critically:

Alaska is located in the Northern, Western, and Eastern Hemispheres. It is located in the Eastern Hemisphere because the Aleutians extend beyond 180°W longitude, which is the dividing line between the Eastern and Western Hemispheres.

Name: _____



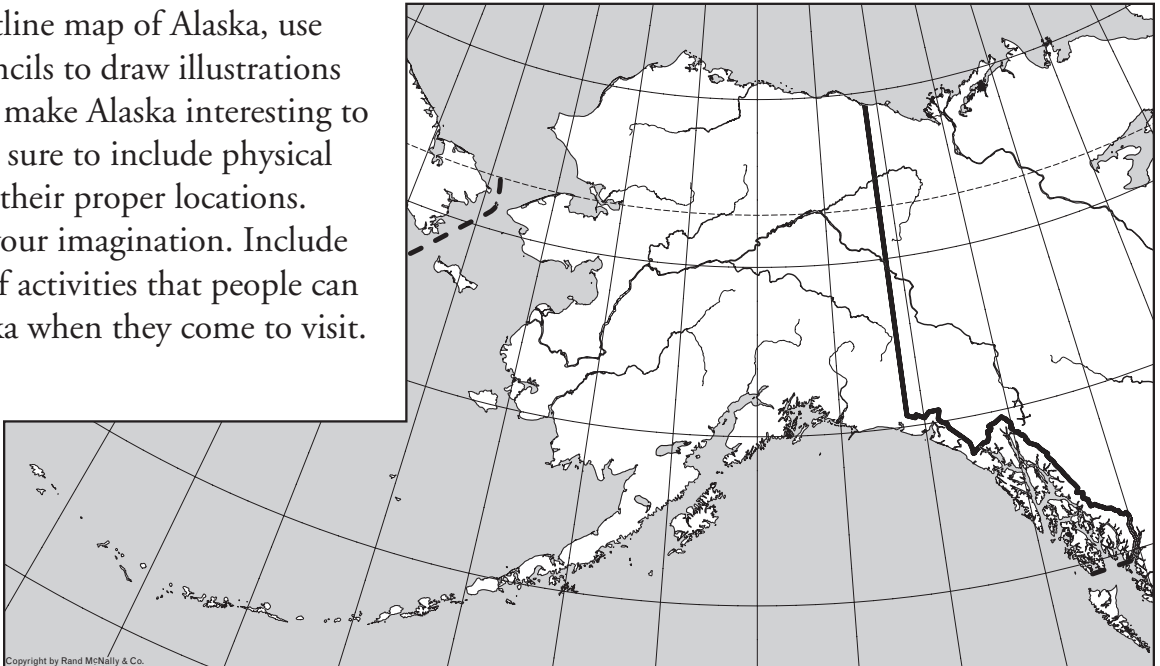
Creating an Illustrated Map

Use the maps and graphs on atlas pages 102–105 to answer the questions below.

1. Which community has a colder climate, Barrow or Valdez? _____
Why? _____
2. In what part of the state do people drill for petroleum? _____
3. How were the Aleutian Islands formed? _____

4. Alaska is located far from the rest of the United States, but it is close to two other countries.
What countries are they? _____
5. Compare the political map on atlas page 102 with the climate map on atlas page 103. Most of Alaska's cities are located in what climate region(s)? _____
Why do you think that is the case? _____

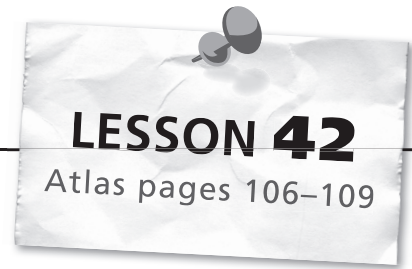
6. On the outline map of Alaska, use colored pencils to draw illustrations that might make Alaska interesting to visitors. Be sure to include physical features in their proper locations. Then use your imagination. Include drawings of activities that people can do in Alaska when they come to visit.



Thinking Critically

Alaska is located in what three hemispheres? Explain.

Picturing Hawaii



Overview

Students will play a guessing game in order to demonstrate their knowledge of Hawaii’s geography.

Objectives Correlated to National Geography Standards

Students will learn:

- The physical and human characteristics of places in Hawaii (Standard 4)
- How a hot spot created the Hawaiian Islands (Standard 7)

Curriculum Connections

Art: Playing a guessing game using art to communicate concepts

Science: Making predictions about island formation

Math: Drawing a diagram

Materials Needed

- United States Detailed Map (atlas pages 38–39)
- United States Political Map (atlas pages 40–41)

Introducing the Lesson

In order to put Hawaii’s relative location in perspective, have students turn to the map on atlas pages 38–39 and have them compare the latitude and longitude of Los Angeles and Hawaii. Make sure they realize that the differences in these “addresses” mean that their locations are distant from one another. Then turn to the map on atlas pages 40–41. Point out how far Hawaii is from California. Tell students that it would take a plane five hours to fly from Los Angeles to Honolulu, a distance of 2,560 miles!

Developing the Lesson

1. Divide the class into pairs for a guessing game using art. They must draw pictures of the terms they are given. They may not speak or use any words in their drawings.
2. Invite one person from each pair up to the chalkboard. Write the word lightly on the board for only those students to see, then erase it. Those students will go back and draw pictures to illustrate the term.
3. The first person to guess the term correctly gets a point. Then the roles are switched and the process is repeated.
4. Words that can be used are:

Island	Hawaii
Warm climate	Hot spot
Volcano	Honolulu
Pineapple	Beaches

Assessing the Lesson

Have the class list all the reasons why Hawaii is its own region and not a part of the Southwest Region. As the students make suggestions, write them on the board. After they have exhausted the list, discuss their ideas.

WORKSHEET ANSWERS

1. Agriculture because of the warm, rainy climate, and tourism because of the scenery and warm climate
2. Hot and rainy all year around
3. O’ahu
4. 360 miles
5. The students’ maps should show that the older islands (those west of the Big Island) are smaller, that the Big Island is larger, and the new island(s) has (have) formed to the southeast.

Thinking Critically

Waterfalls are prevalent in Hawaii because of the mountainous slopes and abundant rainfall.

Name: _____



Predicting Changes in Hawaii's Geography

Use the maps and graphs on atlas pages 106–107 to answer the questions below.

1. What are the main economic activities in Hawaii? _____
Why? _____

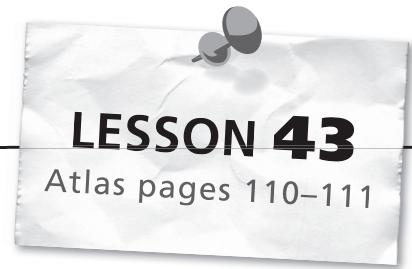
2. Describe Hawaii's weather over a year's time. _____
3. The capital of Hawaii is located on what island? _____
4. What is the distance from the island of Ni'ihau to the town of Hilo on the "Big Island" of Hawaii? _____
5. The Pacific Plate is still moving slowly over the Hawaiian hot spot. In the space below, draw a map of what the Hawaiian Islands might look like several million years from now.
[Hint: wind and rain wear down landforms, while volcanic eruptions build them up.]



Thinking Critically

Why would you expect to see waterfalls in Hawaii? Explain.

Radio Announcements from History



Overview

Students will research various events in U.S. history to understand how they affected the growth of our country and will create “broadcasts” to tell the stories.

Objectives Correlated to National Geography Standards

Students will learn:

- How events influenced people’s perceptions of the United States (Standard 6)
- About the characteristics, distribution, and migration of populations in U.S. history (Standard 9)
- How the forces of cooperation and conflict might influence control of the country (Standard 13)

Curriculum Connections

History: Understanding factors that affected the growth of the United States

Language Arts: Writing accounts of historical events

Introducing the Lesson

Focus students’ attention on the graph on atlas pages 110–111. Discuss the idea that the graph shows the enormous growth of our country’s population since its founding. Have the class read some of the timeline entries to understand how events affected growth.

Developing the Lesson

1. Divide the class into small groups, and assign each group one of the entries on the timeline or population graph.
2. Have students spend a little time researching their topics on the Internet or in the library.
3. Once they have some of the events in mind, have them write radio announcements. These can be in the form of news bulletins, color commentary, or explanations of historic events.
4. Allow each group time to “broadcast” their announcements to the class.

Assessing the Lesson

Engage the class in a discussion about how each of the events on the timeline affected the growth of our country, either in population or in area.

Materials Needed

- Settlement of the United States

WORKSHEET ANSWERS

1. 50,000,000 (50 million)
2. France sold the Louisiana Territory to the United States.
3. Spain gave the land that is now Florida to the United States.
4. By about 125 million people
5. 300 million
6. Make sure that all four groups are represented in the students’ depictions.

Thinking Critically

Because all the people of our country came from other places. Tell the class that scientists think Native Americans migrated here from either Asia and/or the South Pacific.

Name: _____



Other Points of View

Use the graph and timeline on atlas pages 110–111 to answer the questions that follow.

1. In 1880, what was the approximate population of the United States? _____
2. What event in 1803 gave the United States control of the Mississippi River system?

3. What happened in 1819 that changed the geography of the southeastern part of the country?

4. Approximately how much did the population grow between 1850 and 1950?

5. What population milestone did the United States reach in 2006? _____
6. By the 1800s, there were many different groups of people who called North America home. They were:
 - The Native Americans who were here first
 - The Europeans who came later
 - The Africans who were brought here against their will
 - The people who thought of themselves as Americans, whose families had lived here for 200 years

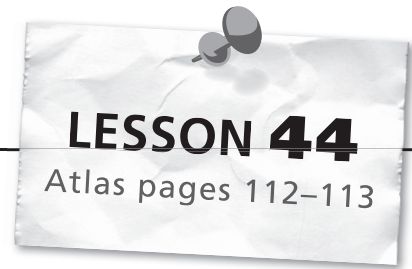
Pick one of these groups and a particular time in history. Think about how you might feel about your country and about the other groups that were here. In the space provided, write down your thoughts and feelings from “your” point of view.



Thinking Critically

Why do you think our country is sometimes called “a country of immigrants”?

Stories of the First People



Overview

Students will read stories about Native Americans and create dioramas representing scenes from the stories.

Objectives Correlated to National Geography Standards

Students will learn:

- About the characteristics, distribution, and migration of populations in U.S. history (Standard 9)
- How the forces of cooperation and conflict might influence control of the country (Standard 13)

Curriculum Connections

History: Understanding Native American cultures

Language Arts: Reading literature

Art: Depicting scenes from selected groups

Introducing the Lesson

Focus students' attention on the map of Native American homelands on atlas page 112. Have them locate the Native American groups in various regions. Tell them that in this lesson they are going to be reading stories written by Native Americans.

Developing the Lesson

1. Many excellent websites exist that have annotated bibliographies about Native Americans. The following are two of them:
 - www.library.humboldt.edu/~berman/naclit.htm
 - www.oyate.org
2. Choose a few books for students to read, some of which might be:
 - *Powwow* by George Ancona, about a Crow fair
 - *The Mishomis Book* by Edward Benton-Banai, about how the Ojibway people came to be
 - *The Arrow Over the Door*, which includes different views of young Native American men during the time of the American Revolutionary War
3. Divide the class into small groups and have each group choose a book to focus on.
4. Ask each group to choose a scene from the book and depict it on a diorama.
5. Discuss the differences in Native American cultures and lifestyles. Ask students to consider how the arrival of the Europeans and Africans would have affected Native American groups.

Assessing the Lesson

Have students look at the two maps on atlas pages 112 and 113. Discuss what Native American groups the Europeans would have encountered upon arriving in North America.

graph (atlas pages 110–111)

Materials Needed

- Native American Homelands Map (atlas page 112)
- Routes to the New World Map (atlas page 113)
- Several books about Native Americans

WORKSHEET ANSWERS

1. England, Spain, and France
2. They were forcefully brought to the Americas to work in the fields.
3. A place settled by people who have come from another country but have kept ties with their homeland
4. Native Americans
5. Members of the Eastern Woodlands, such as the Iroquois, Pequot, Delaware, Powhatan, or Tuscarora
6. Check students' classifications against the map on atlas page 112.

Thinking Critically:

Those groups who moved about were moving with changes in seasons, for example, when the climate became too hot and dry. Some groups moved with herds of different animals for hunting purposes. Those who tended to stay in one place lived in places that were rainier where they could meet their needs all year around.

Name: _____



Regions of Native Americans

WORKSHEET 44

Use the maps and text on pages 112–113 to answer the questions that follow.

1. By 1600, Europeans from what countries had started settling in North America?

2. Why did Africans come to the Americas?

3. What is a colony?

4. Who were the first Americans?

5. Name one Native American group that might have had first contact with the Europeans.

6. Native American tribes were part of larger Indian groups or cultures. List at least two tribes under the culture areas they belonged to.

Northwest Coast

Eastern Woodlands

Southeast

Plains

Plateau

Great Basin

California

Oasis

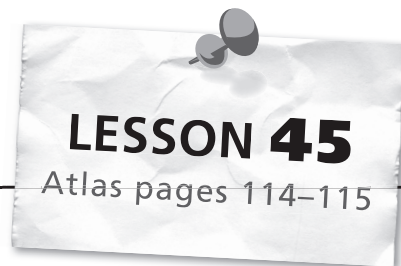


Thinking Critically

Why do you think some Native American groups moved about and others stayed in one place? [Hint: Check the climate map on atlas pages 44–45.]

**SETTLEMENT OF THE UNITED STATES:
THE COUNTRY GROWS**

Government Leaders



Overview

Students will assume the roles of government leaders in the 1800s who speak on behalf of expansion of the country.

Objectives Correlated to National Geography Standards

Students will learn:

- About the characteristics, distribution, and migration of populations in U.S. history (Standard 9)

Curriculum Connections

History: Understanding how the United States developed

Language Arts: Making presentations

Introducing the Lesson

Focus students' attention on the map of the Thirteen Colonies on atlas page 114. Tell the class that in this lesson they are going to pretend that they are leaders in the United States government in the 1800s and will be making speeches advocating expansion of territory.

Developing the Lesson

1. Divide the class into six groups and assign each group one of the following territories shown on the Westward Expansion map on atlas page 115:
 - Northwest Territory
 - Mississippi Territory
 - Louisiana Purchase
 - Texas and Kansas Territory
 - Utah and New Mexico Territory (includes California)
 - Oregon Country
2. Give the groups time to research their territory. Their goal is to act as lawmakers in the U.S. Congress and make impassioned speeches advocating expansion of the territory they are assigned to.
3. Make sure students refer to physical features and water bodies. They should realize that control of rivers and access to the Great Lakes and Pacific Ocean were important for trade and growth. Mountain barriers had to be overcome in order to unite the country.
4. Invite individual members of each group to prepare remarks, expressing reasons why they are in favor of expansion.

Assessing the Lesson

Ask the class to imagine what life would be like today if our country had not expanded. Discuss some of the implications of this limited geography.

Thinking Critically:

Lewis and Clark explored the Missouri River system and opened up a route to the Pacific Ocean. This helped convince people that the United States could gain control of all the land from the Atlantic to the Pacific Ocean.

Materials Needed

- The Thirteen Colonies Map (atlas page 114)
- Westward Expansion of the U.S., 1803–1860 Map (atlas page 115)

WORKSHEET ANSWERS

1. Along the East Coast from Maine to Georgia, from the Atlantic Ocean in the east to the Appalachian Mountains in the west.
2. It started in Independence, Missouri, followed the Missouri River briefly, then continued westward through what is now Nebraska, Wyoming, Idaho, and Oregon.
3. 1845
4. San Francisco
5. 1846
6. Make sure students understand the geographic implications of each addition of territory.
 - a. Gave the United States control of the Missouri River and the western bank of the Mississippi River
 - b. Gave the United States access to the Great Lakes
 - c. Gave the United States access to the Pacific Ocean
 - d. Gave the United States access to the port of San Francisco
 - e. Gave the United States control of a vulnerable peninsula and access to the Gulf of Mexico
 - f. Gave the United States access to the Gulf of Mexico

Name: _____



Advantages of Territory

WORKSHEET 45

Use the maps on atlas pages 114–115 to answer the following questions.

1. Describe the geographic region where the Thirteen Colonies were located.

2. Describe the route of the Oregon Trail.

3. When was Texas annexed?

4. Name the port city on the West Coast.

5. In what year was the boundary with Canada established in the Oregon Country?

6. After each of the following items, describe the advantages that were gained by the United States as a result of the gain in land.

a. Louisiana Purchase:

b. Northwest Territory:

c. Oregon Country:

d. Southwestern territory, ceded by Mexico:

e. Florida, ceded by Spain:

f. Texas, annexed:

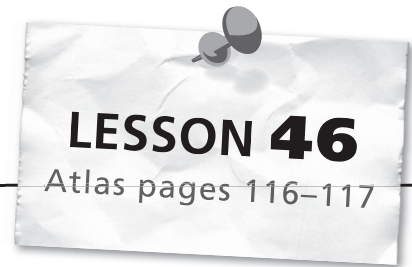


Thinking Critically

Lewis and Clark were asked by President Thomas Jefferson to explore the Louisiana Territory. How do you think their journey and their report to the President helped the United States?

**SETTLEMENT OF THE UNITED STATES:
SETTLEMENT PATTERNS**

Looking Back in Time



Overview

Students will use maps to trace a state's history through time.

Objectives Correlated to National Geography Standards

Students will learn:

- About the characteristics, distribution, and migration of populations in U.S. history (Standard 9)

Curriculum Connections

History: Understanding how the United States developed

Art: Making an "accordion" book

Introducing the Lesson

Ask the class to imagine our country as it was in its early history. Invite them to name some of the things that would not have been built yet—roads, highways, telephone lines, electrical lines, skyscrapers, etc. Tell them that in this lesson they will trace the history of one state.

Developing the Lesson

1. Tell the class that they should use all the maps in this section (atlas pages 110–119) for this lesson.
2. Have each student pick one state. Make sure there are no duplications.
3. Provide each student with a long sheet of paper about 4" x 22", which they will fold like accordions into approximately eight panels.
4. Have the students devote one period of history to each panel in their accordion books. They must write captions and draw illustrations or symbols to represent each period, starting with the earliest information about the Native American groups that lived in that state.
5. Once they have finished their creations, display them for the whole class to see.

Assessing the Lesson

Play a game in which you name a state and students tell something about its past.

Materials Needed

- All maps from atlas pages 110–119
- One 4" x 22" sheet of paper for each student

WORKSHEET ANSWERS

1. Between the Atlantic coast and the Appalachian Mountains
2. The Appalachian Mountains
3. Most of the western half of the country and southern Florida
4. Travel along rivers or by wagon over dirt roads
5. Towns that formed along railroad tracks where cowboys drove their herds, so they could be loaded onto trains
6. Check the students responses to make sure they represent the time period.

Thinking Critically:

Railroads suddenly gave the country a way of moving both people and goods from ocean to ocean. They successfully united the country.

Name: _____

Diary of a Pioneer



Use the maps on atlas pages 116–117 to answer the questions that follow.

1. In 1800, where did most of the people of the United States live? _____

2. What physical feature was a major barrier to settlement in 1800? _____

3. What areas remained mostly unsettled by 1890? _____

4. Describe the main forms of travel available to people in 1800.

5. What were “cow towns”? _____

6. Choose one of the time periods shown on the maps on atlas pages 116–117. Imagine that you are part of a pioneer family who is moving westward. Choose the type of transportation you will take and describe the route. Using a separate sheet of paper, write at least five entries in your “diary.”

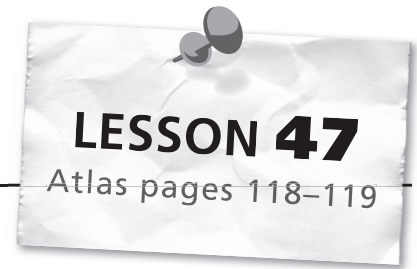


Thinking Critically

Why do you think it was important to build railroads across the country?

**SETTLEMENT OF THE UNITED STATES:
WAVES OF IMMIGRATION**

A Country of Immigrants



Overview

Students will interview family members about their heritage, then create a “Country of Immigrants” banner for the classroom.

Objectives Correlated to National Geography Standards

Students will learn:

- About the characteristics, distribution, and migration of populations in U.S. history (Standard 9)

Curriculum Connections

History: Understanding how the United States developed

Math: Graphing figures

Art: Drawing flags

Introducing the Lesson

Discuss the heritage of the whole class. Point out that their distant family members came from all over the world, including those of Native American ancestry. Tell them that in this lesson they are going to celebrate their global heritage.

Developing the Lesson

1. Tell students that immigrants came to our country for many reasons. They came so that they could own land, which some weren't allowed to do in Europe. They came because of crop failures. They came so that they would have more freedom, particularly in their religious beliefs. In this lesson, students are going to interview their family members about their heritage, taking notes about the countries they came from.
2. Once they have collected that information, have them create flags or symbols of those countries on 3" x 5" index cards.
3. When the cards are complete, put two hole punches in the top of each and string them up in the classroom with colorful yarn.

Assessing the Lesson

Have students illustrate the global nature of our population by asking them to pinpoint their families' origins on a world map. Use stickers or pushpins to identify each country. Invite students to summarize their findings.

Materials Needed

- 3" x 5" index cards
- Yarn
- Stickers or pushpins

WORKSHEET ANSWERS

1. A person who moves from one country to another to live
2. Between 1880 and 1920
3. Many came because conditions in their home countries were poor, either from crop failures, harsh governments, or limited freedoms.
4. Europe
5. Asia
6. Check students' graphs for accuracy.

Thinking Critically

The graph more clearly shows the relative sizes of the immigrant populations.

TIME TO EXPLORE ANSWER

Students could take either position but should be able to defend their opinions.

Name: _____

Graphing Immigration Figures



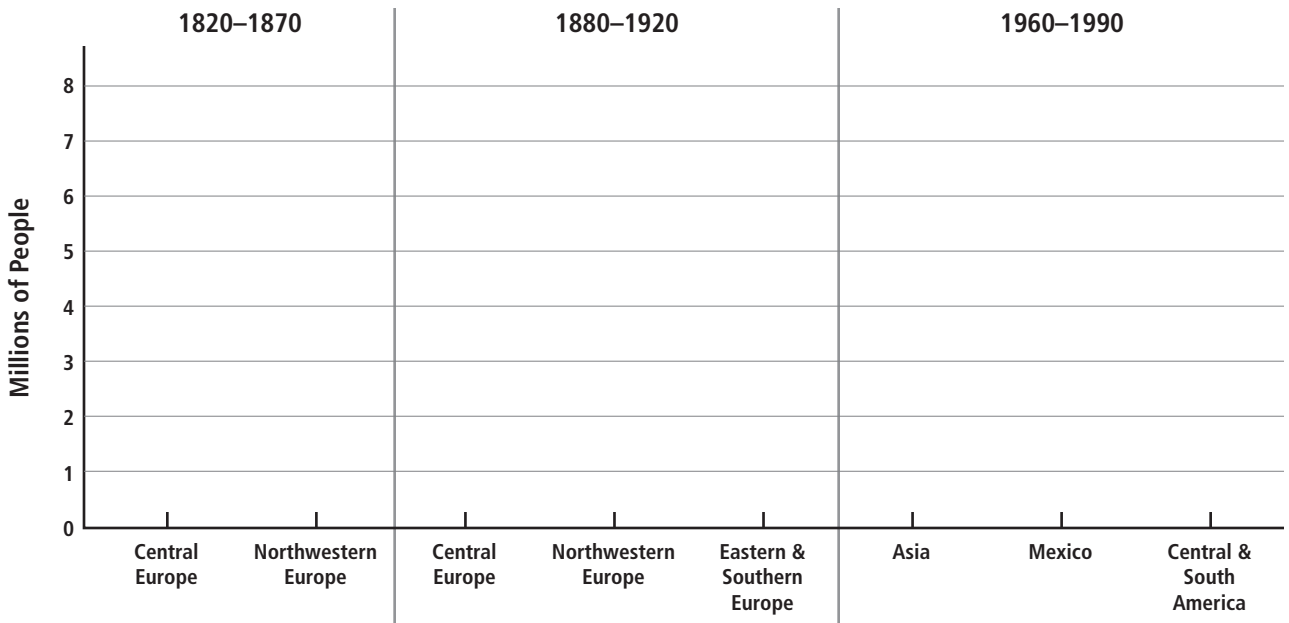
WORKSHEET 47

Use the maps on atlas pages 118–119 to answer the following questions.

1. What is an immigrant? _____
2. In what time period did the largest total number of immigrants come to the United States?

3. Describe several of the reasons people came to the United States. _____

4. In the 1800s, most immigrants came from what continent? _____
5. Where did most immigrants come from between from 1960 to 2000? _____
6. In this atlas you have learned that information can be provided in different ways. Look at the information on the maps on atlas pages 118–119. Complete the graph below by adding bars corresponding to the numbers of immigrants from each region for the three time periods.



Thinking Critically

What does the graph show you more clearly than the maps do?

Outline Maps

In this section you'll find the following 22 reproducible outline (or blackline master) maps:

1) Globe Outline Map Centered on the Prime Meridian	Page 105
2) The Four Hemispheres Outline Map	Page 107
3) World Outline Map with Country Boundaries	Page 109
4) World Outline Map without Country Boundaries	Page 111
5) Pacific Rim Outline Map	Page 113
6) North America Outline Map with Country Boundaries	Page 115
7) North America Outline Map without Country Boundaries	Page 117
8) United States Outline Map with State Names	Page 119
9) United States Outline Map without State Names	Page 121
10) United States "Swing 50" Outline Map	Page 123
11) United States Outline Map without State Boundaries	Page 125
12) Northeast Region Outline Map	Page 127
13) Mid-Atlantic Region Outline Map	Page 129
14) Southeast Region Outline Map	Page 131
15) Midwest Region Outline Map	Page 133
16) North Central Region Outline Map	Page 135
17) South Central Region Outline Map	Page 137
18) Southwest Region Outline Map	Page 139
19) Northwest Region Outline Map	Page 141
20) Alaska Outline Map	Page 143
21) Hawaii Outline Map	Page 145
22) The Thirteen Colonies Outline Map	Page 147

IDEAS FOR USING OUTLINE MAPS

Using Global Grids

Most of the outline maps include a global grid. Having lines of latitude and longitude available will help students compare locations and align information more accurately. Maps with grids may be used in the following ways:

- To locate cities using coordinates
- To label key parallels and meridians
- To calculate distances by degree
- To classify locations by hemisphere
- To draw routes by connecting coordinates
- To create climate regions by latitude
- To create January and/or July temperature maps by latitude

Using Maps With Political Boundaries

Most of the outline maps include international and/or state boundaries. These will help orient students as they add physical and human features. Maps with political boundaries may be used in the following ways:

- To locate cities of different sizes
- To construct political maps, labeling states and countries
- To draw in physical features, such as mountain ranges, river systems, and lakes
- To create "Points of Interest" maps
- To create population density maps
- To create product or land use maps
- To draw routes related to stories in literature
- To draw routes related to historical events
- To measure relative distances
- To create special-purpose maps, such as sports team maps

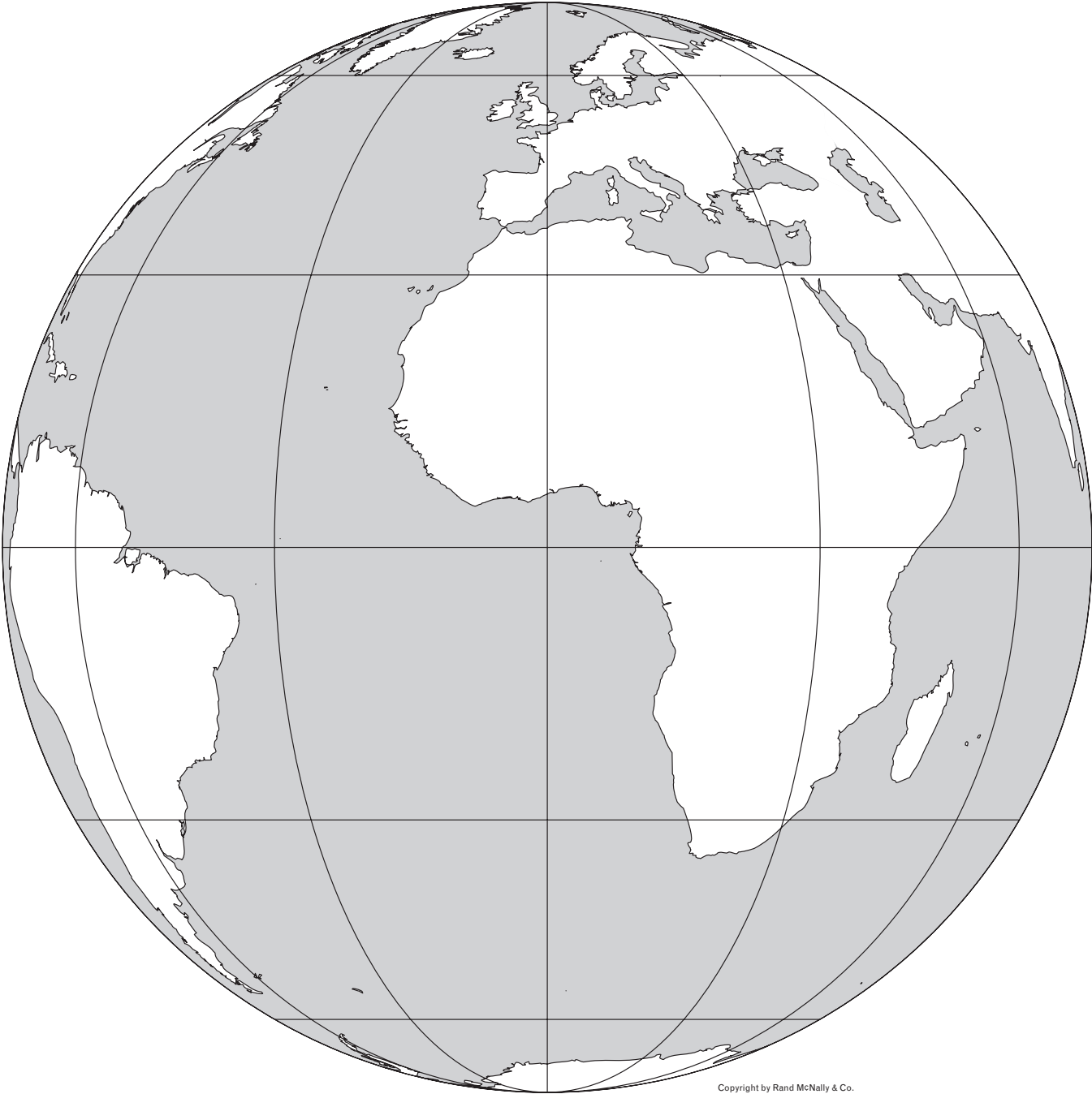
Using Maps Without Political Boundaries

Maps without boundaries test students' mastery of geography. Using them periodically throughout the year will give an indication of the students' progress. Maps without boundaries may be used in the following ways:

- To construct political maps with boundaries and labels
- To create physical maps showing mountains and water bodies
- To create maps of climate regions
- To draw plate tectonic boundaries
- To illustrate weather systems



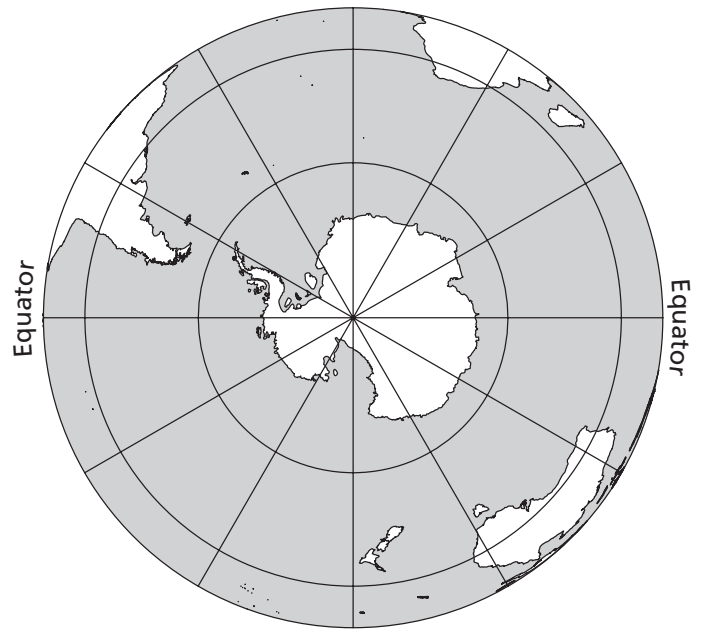
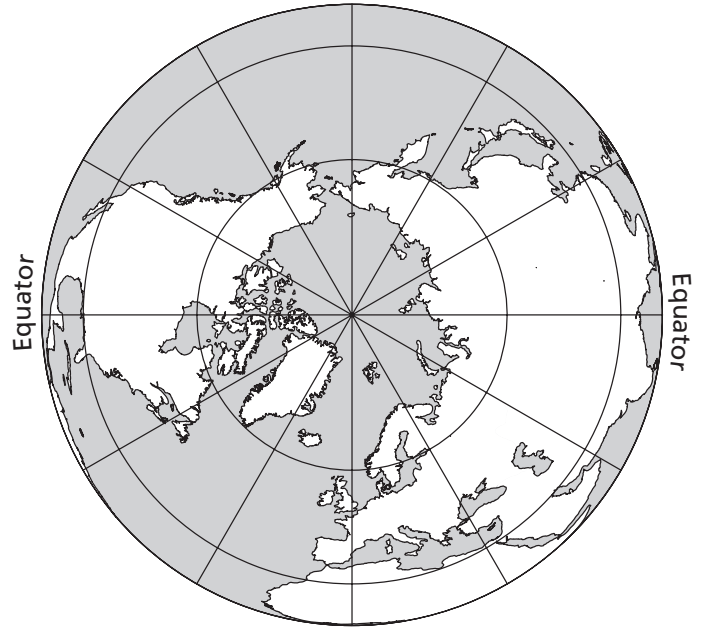
Globe Outline Map Centered on the Prime Meridian



Copyright by Rand McNally & Co.



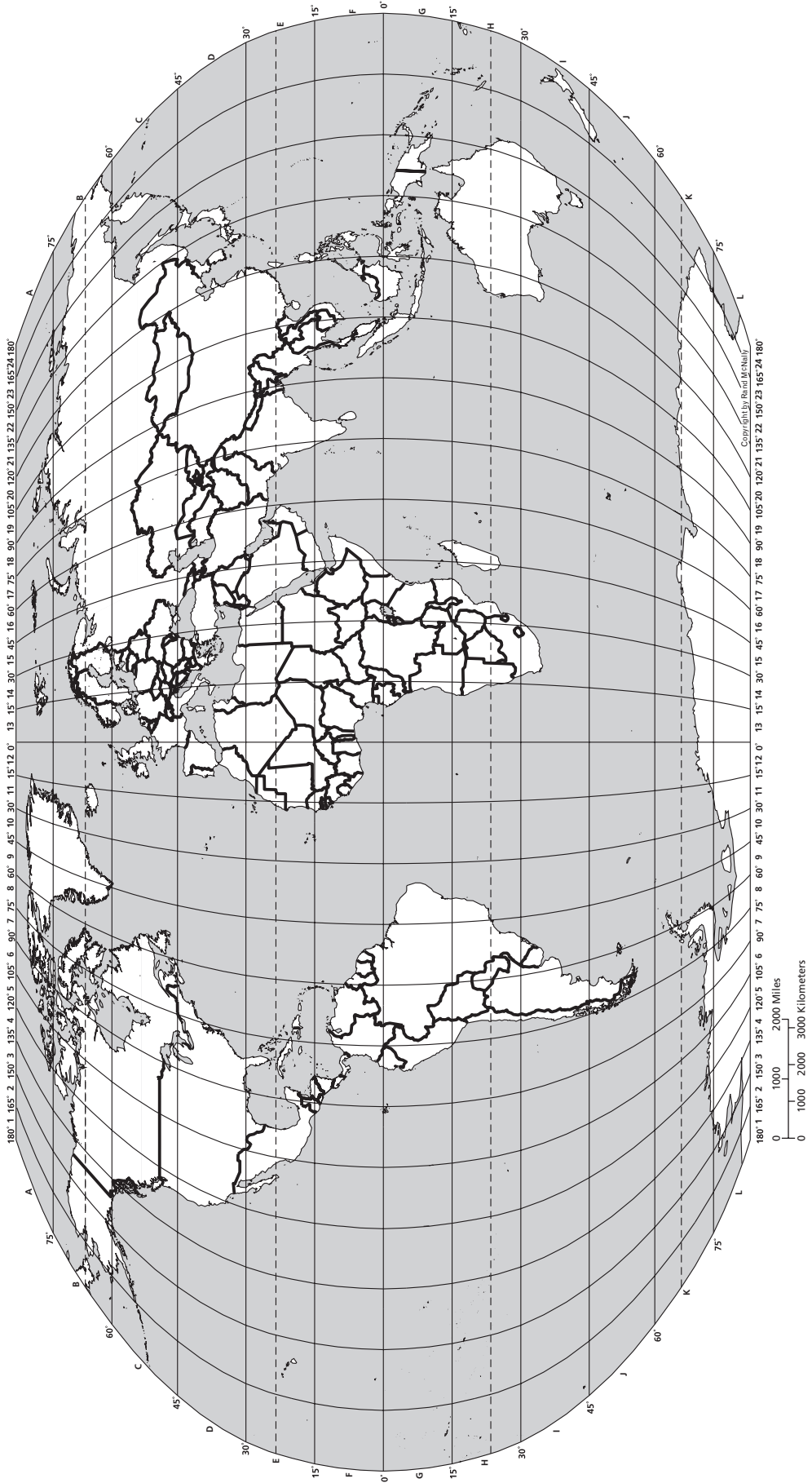
The Four Hemispheres Outline Map



Copyright by Rand McNally & Co.

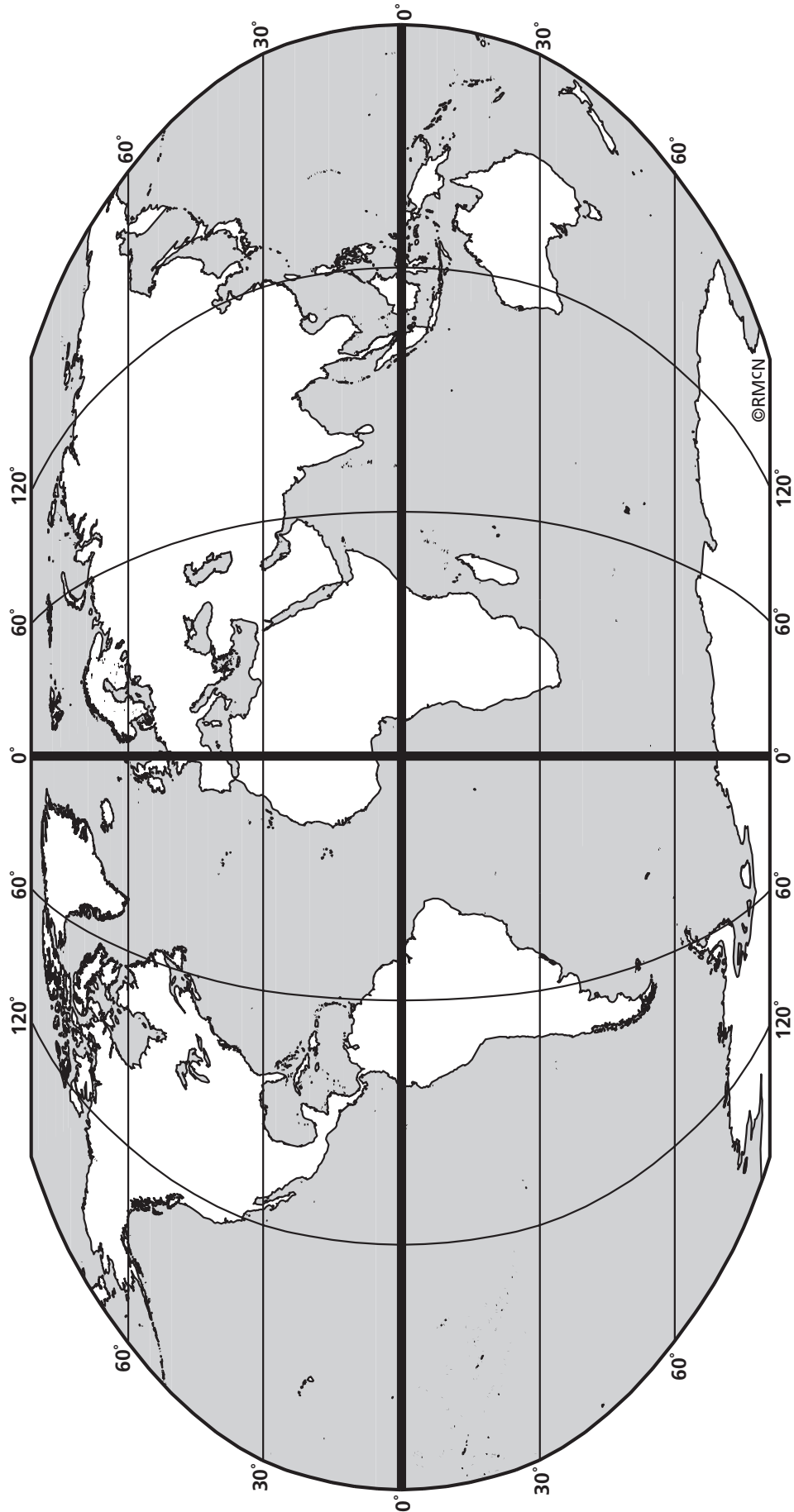


World Outline Map with Country Boundaries



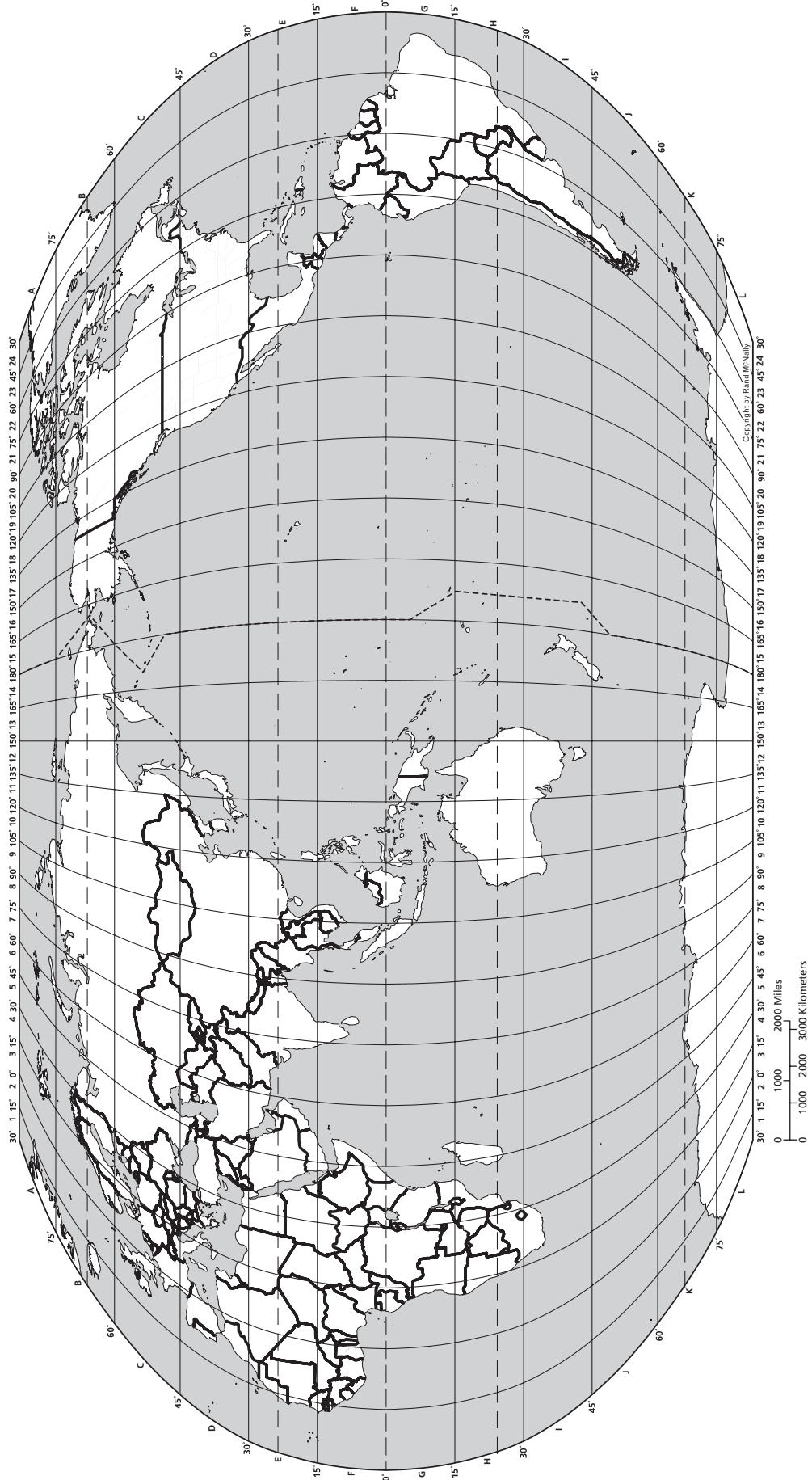


World Outline Map without Country Boundaries



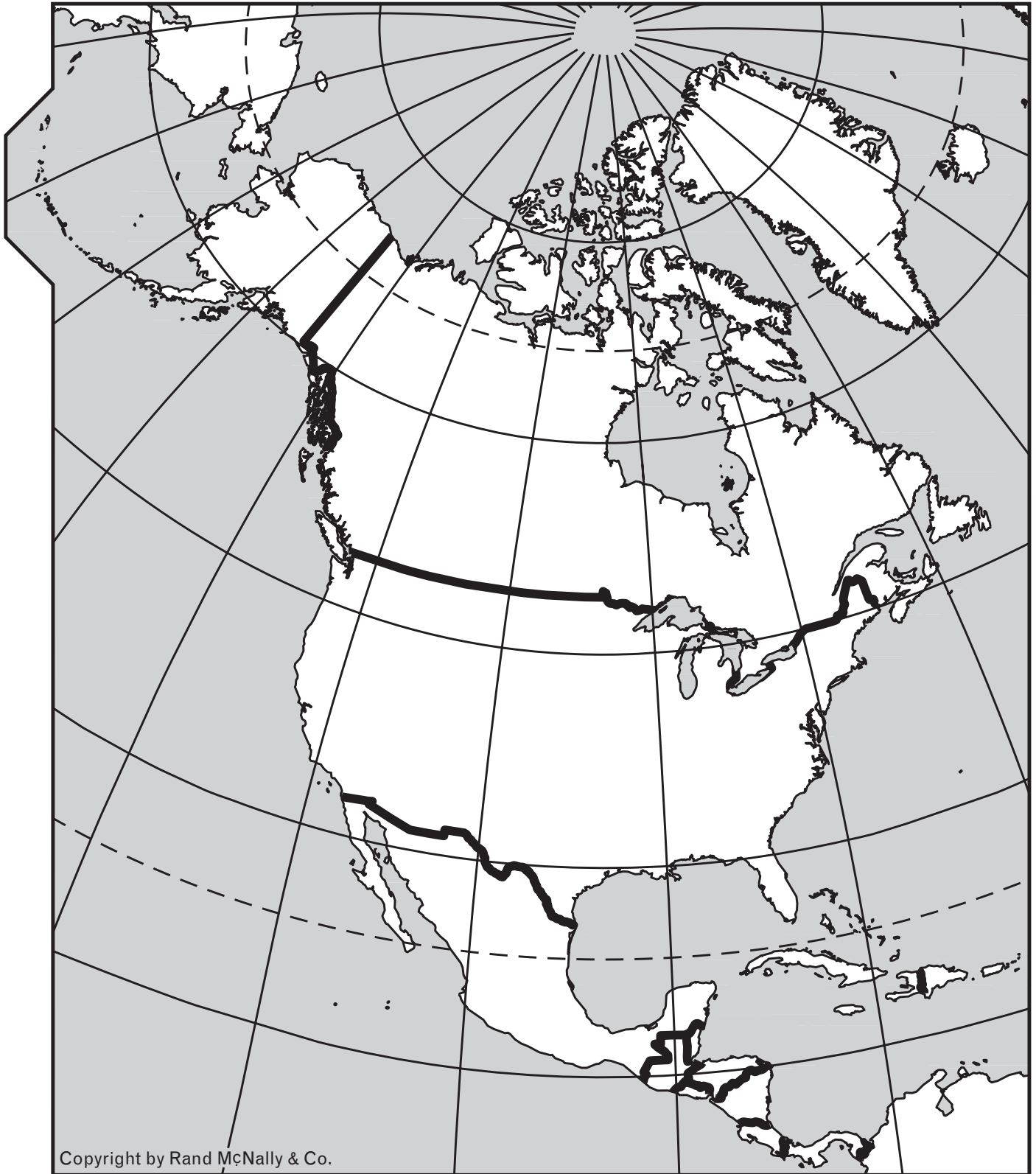


Pacific Rim Outline Map





North America Outline Map with Country Boundaries





North America Outline Map without Country Boundaries





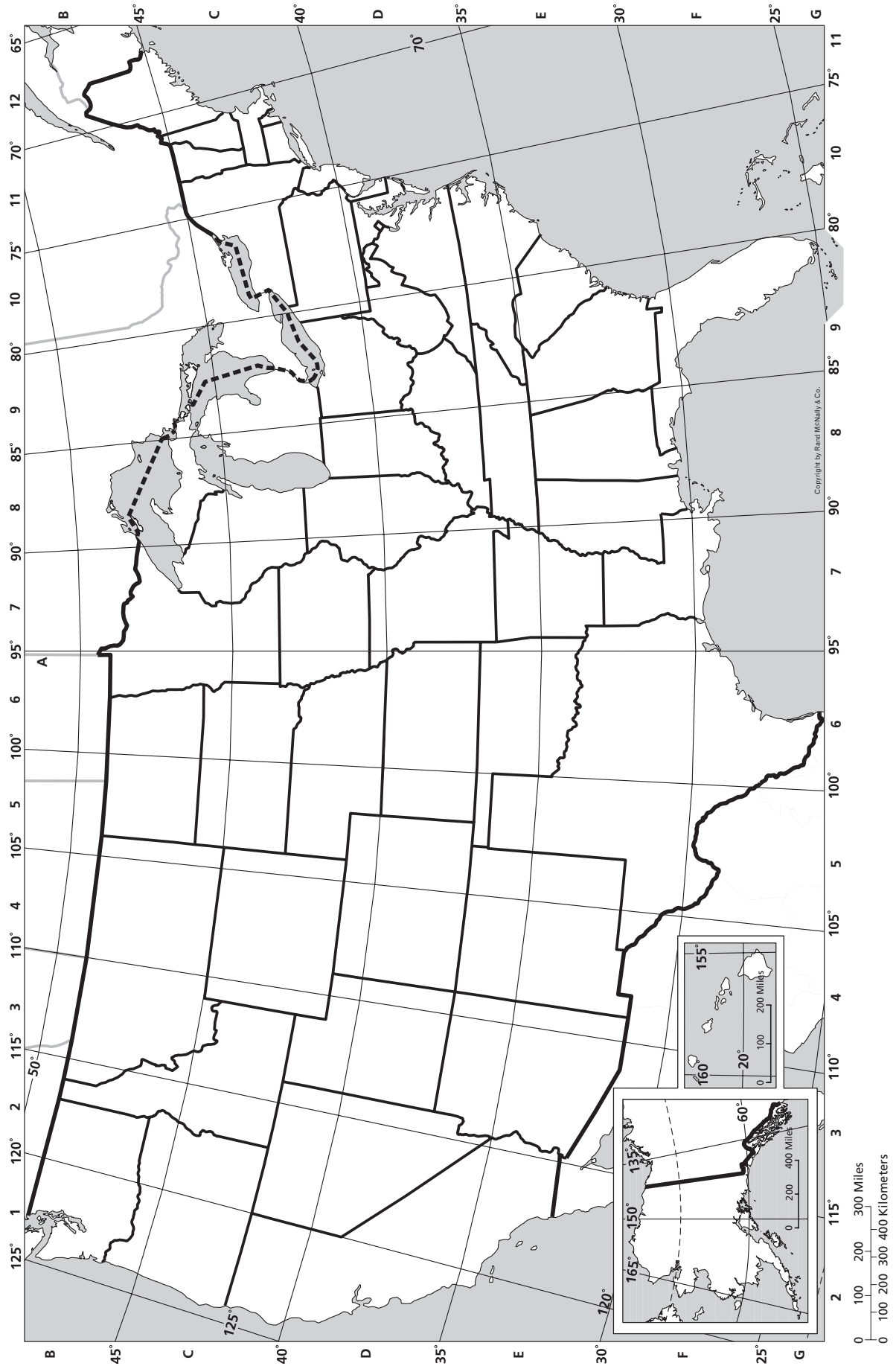
United States Outline Map with State Names



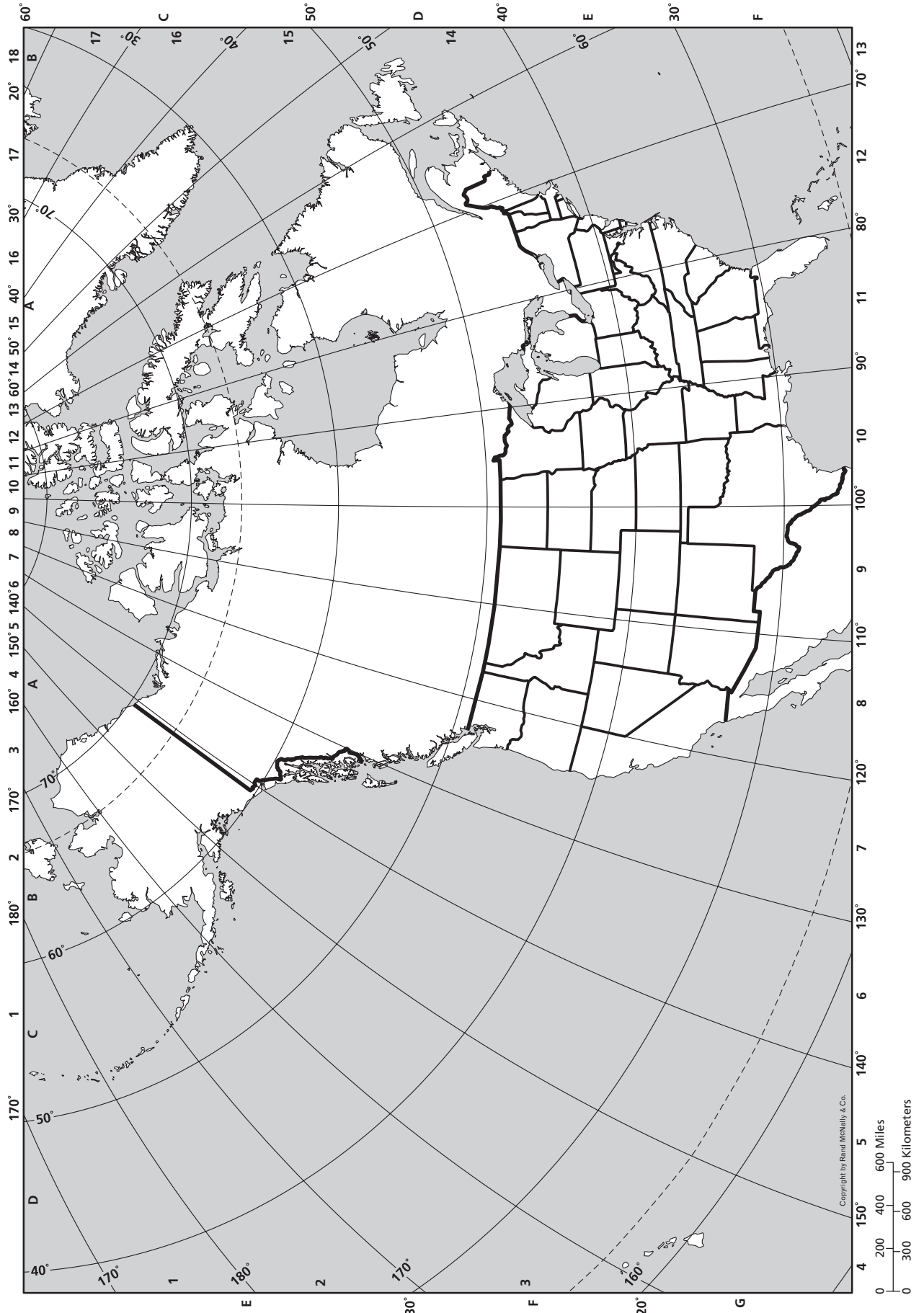
Copyright by Rand McNally & Co.



United States Outline Map without State Names

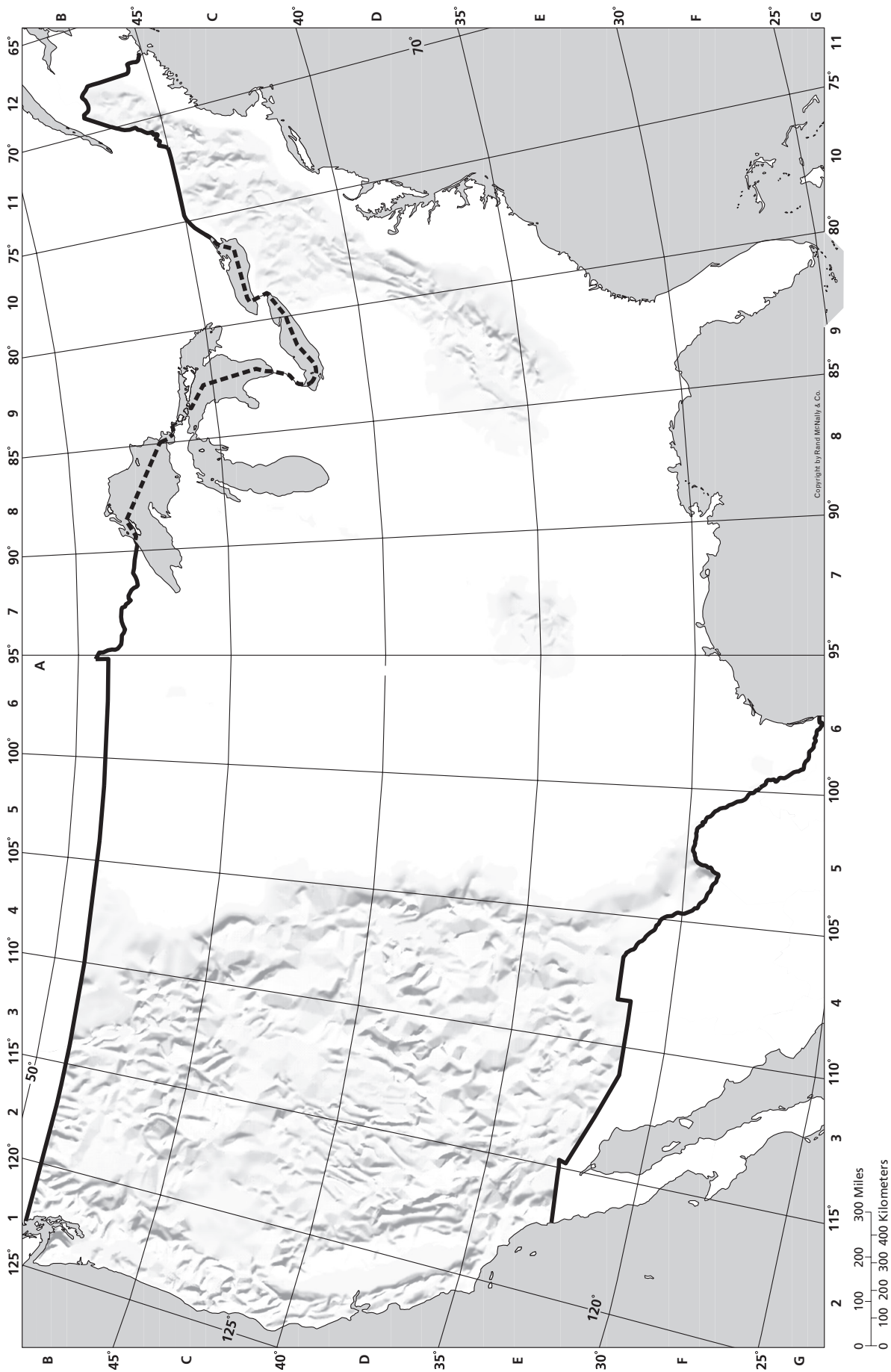


United States "Swing 50" Outline Map

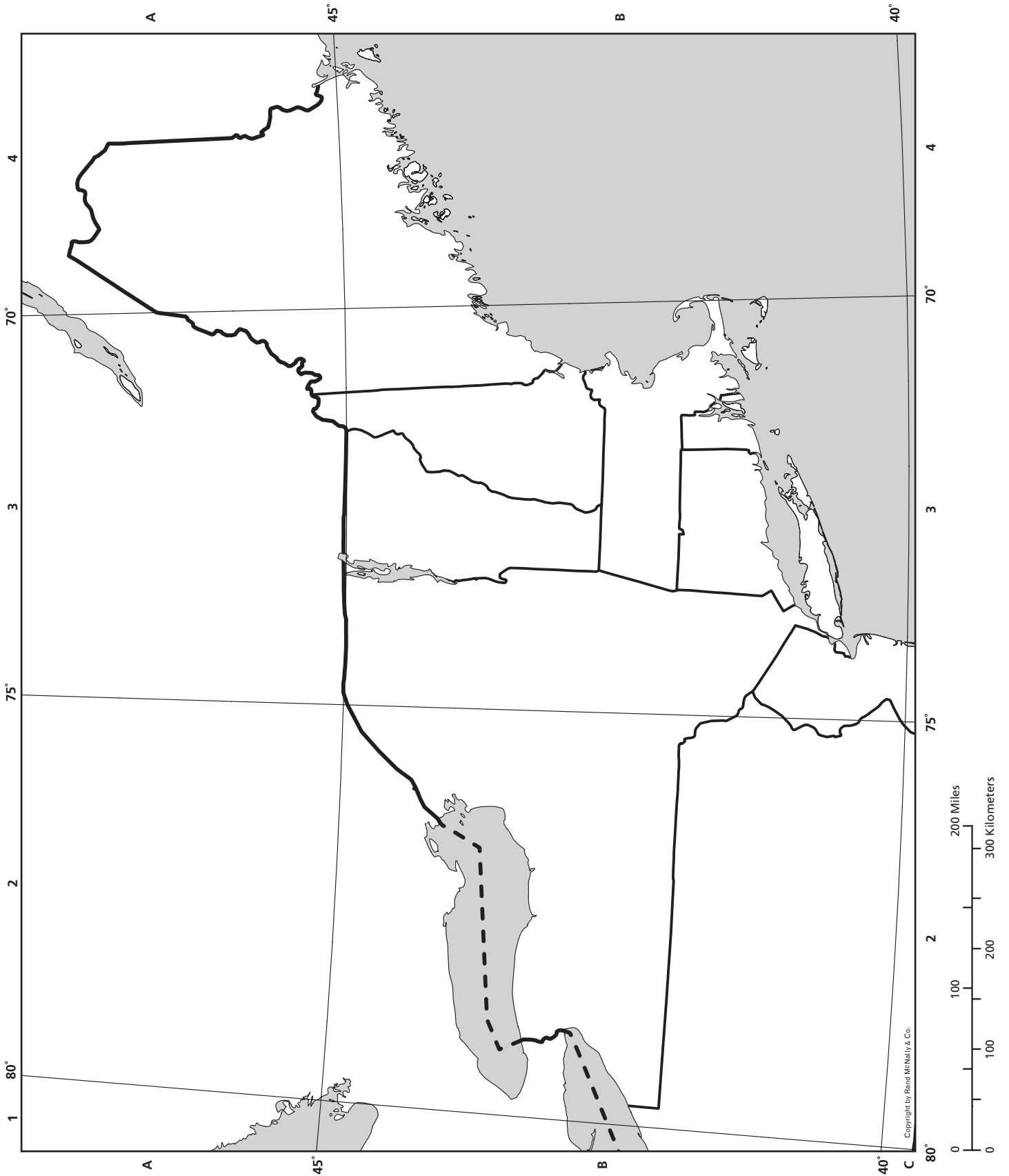




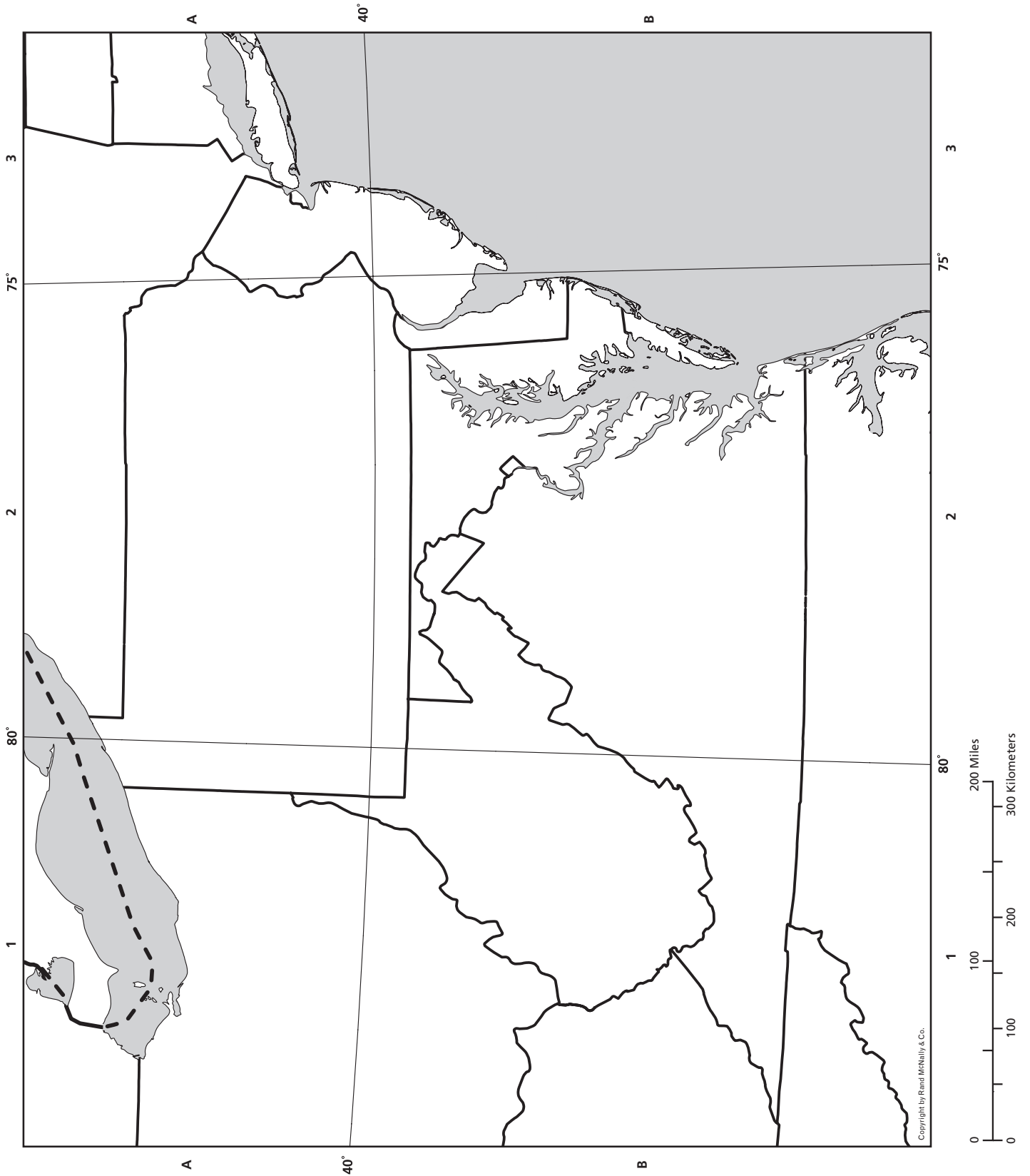
United States Outline Map without State Boundaries



Northeast Region Outline Map

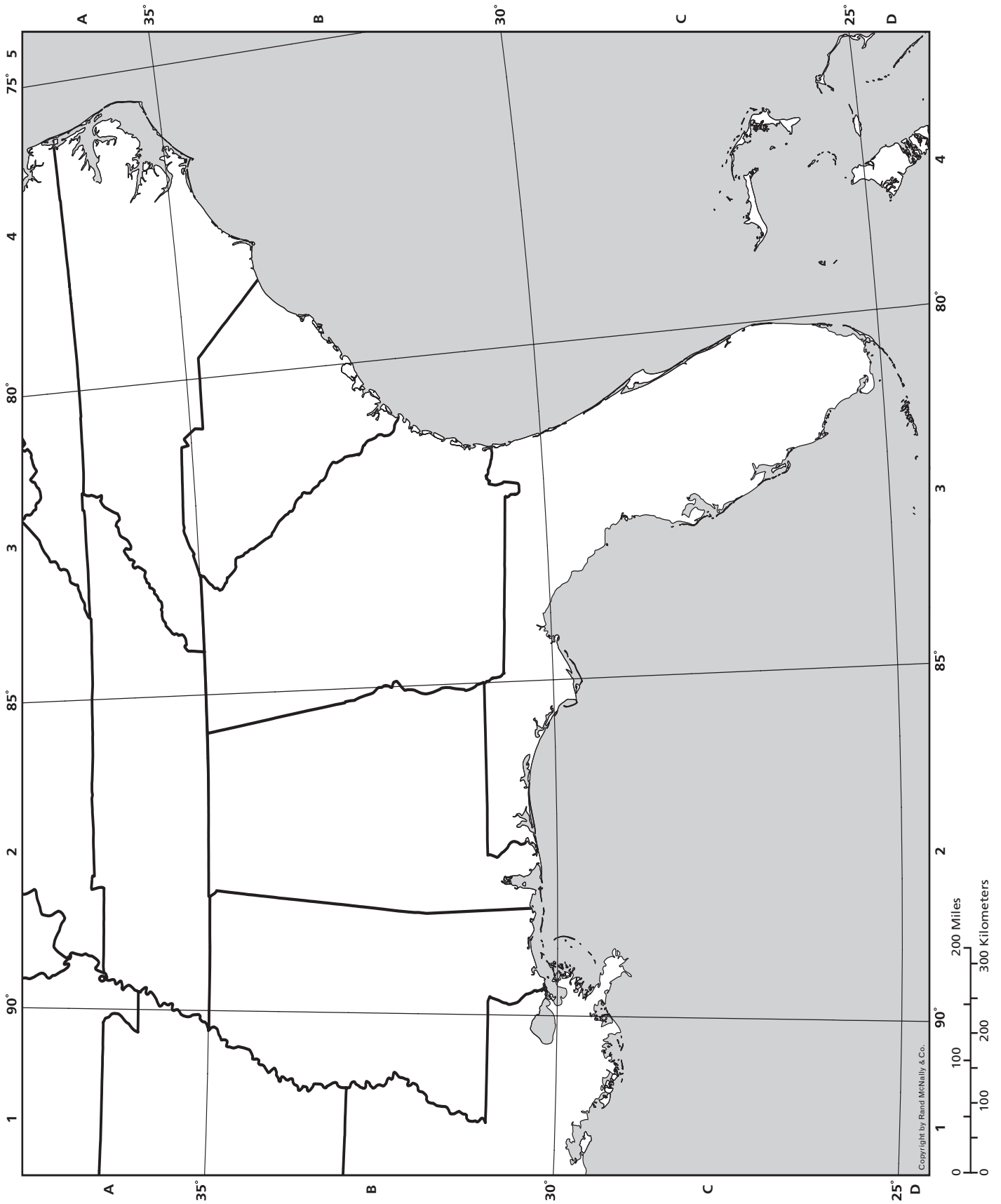


Mid-Atlantic Region Outline Map





Southeast Region Outline Map



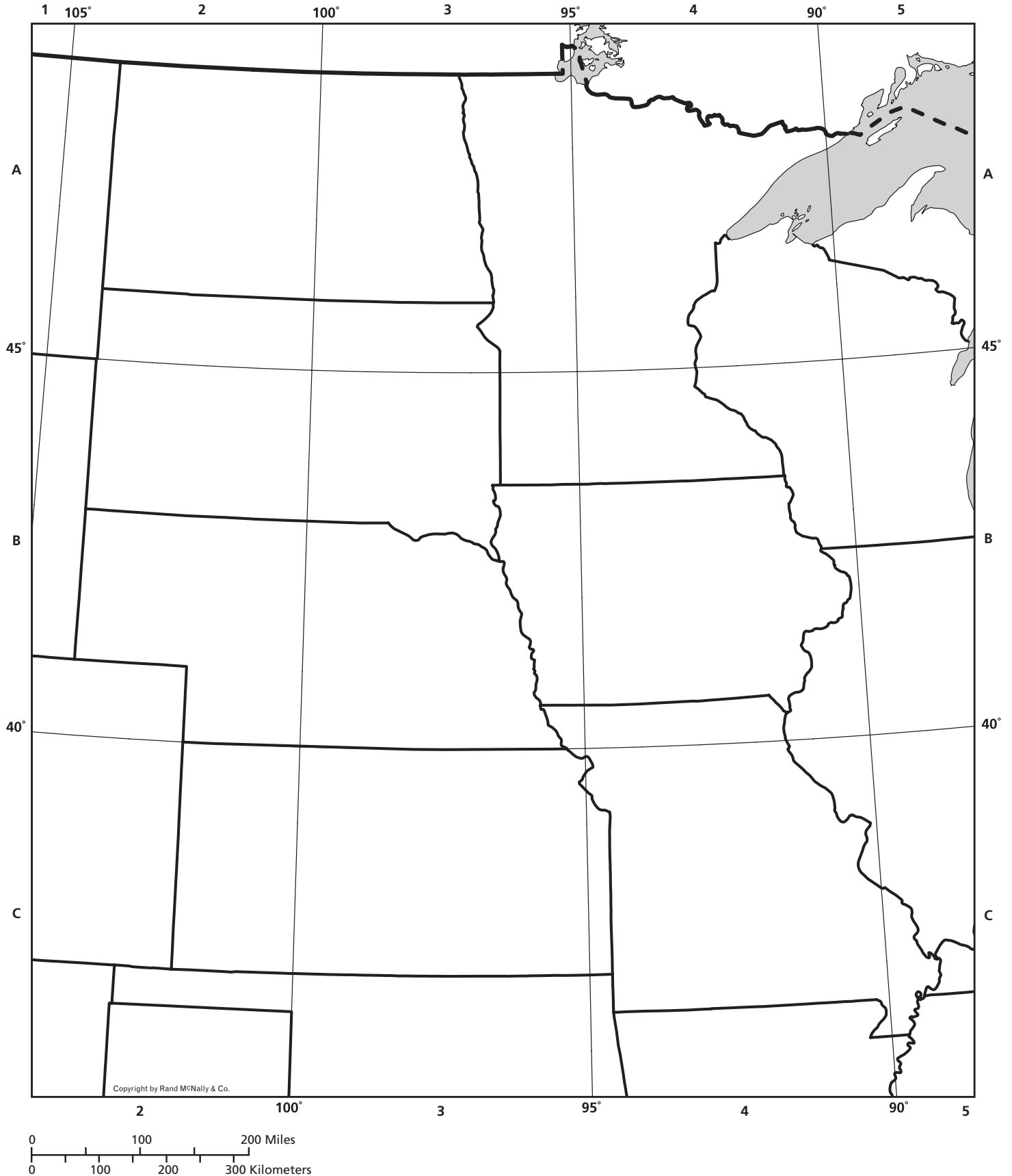


Midwest Region Outline Map



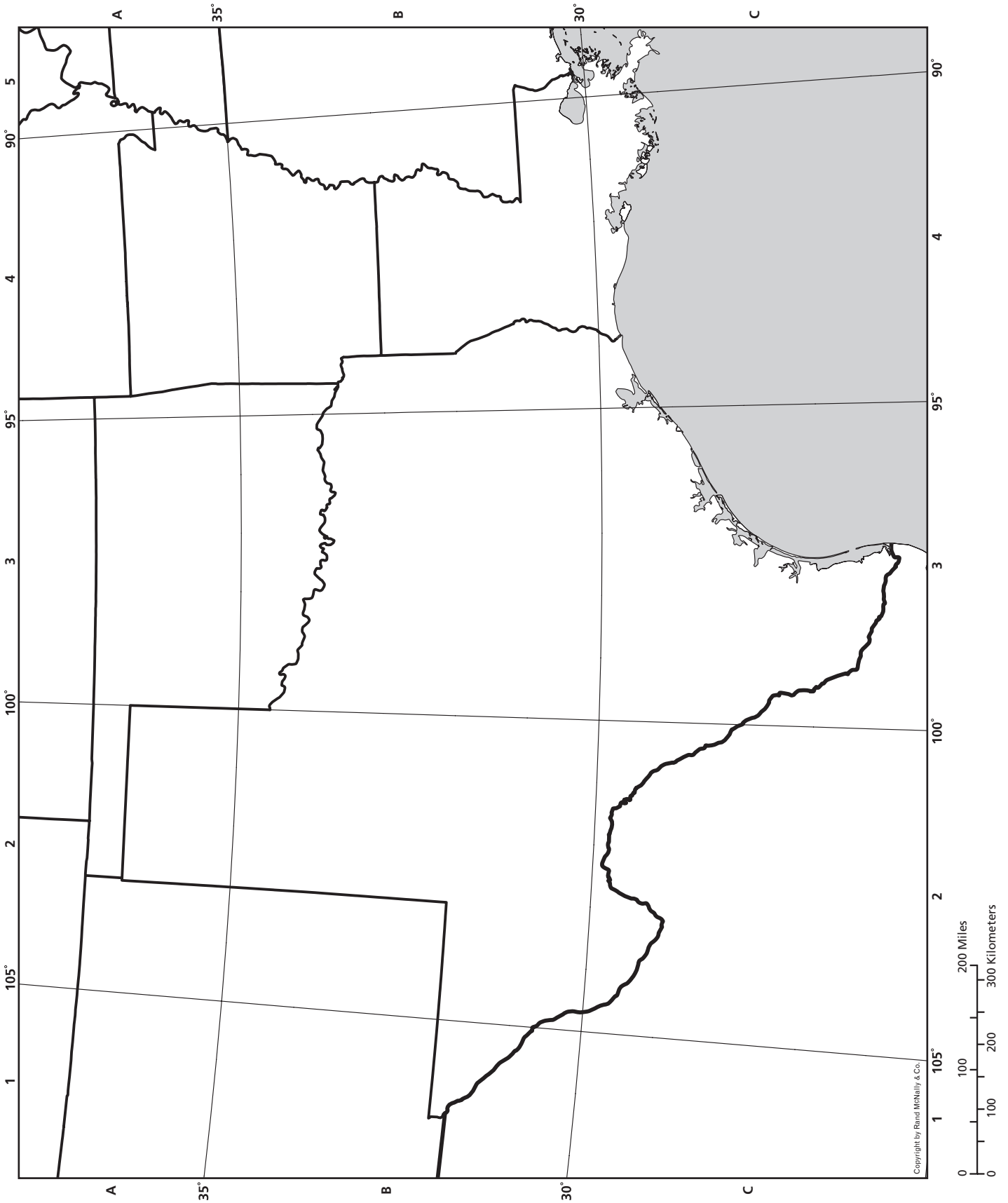


North Central Region Outline Map



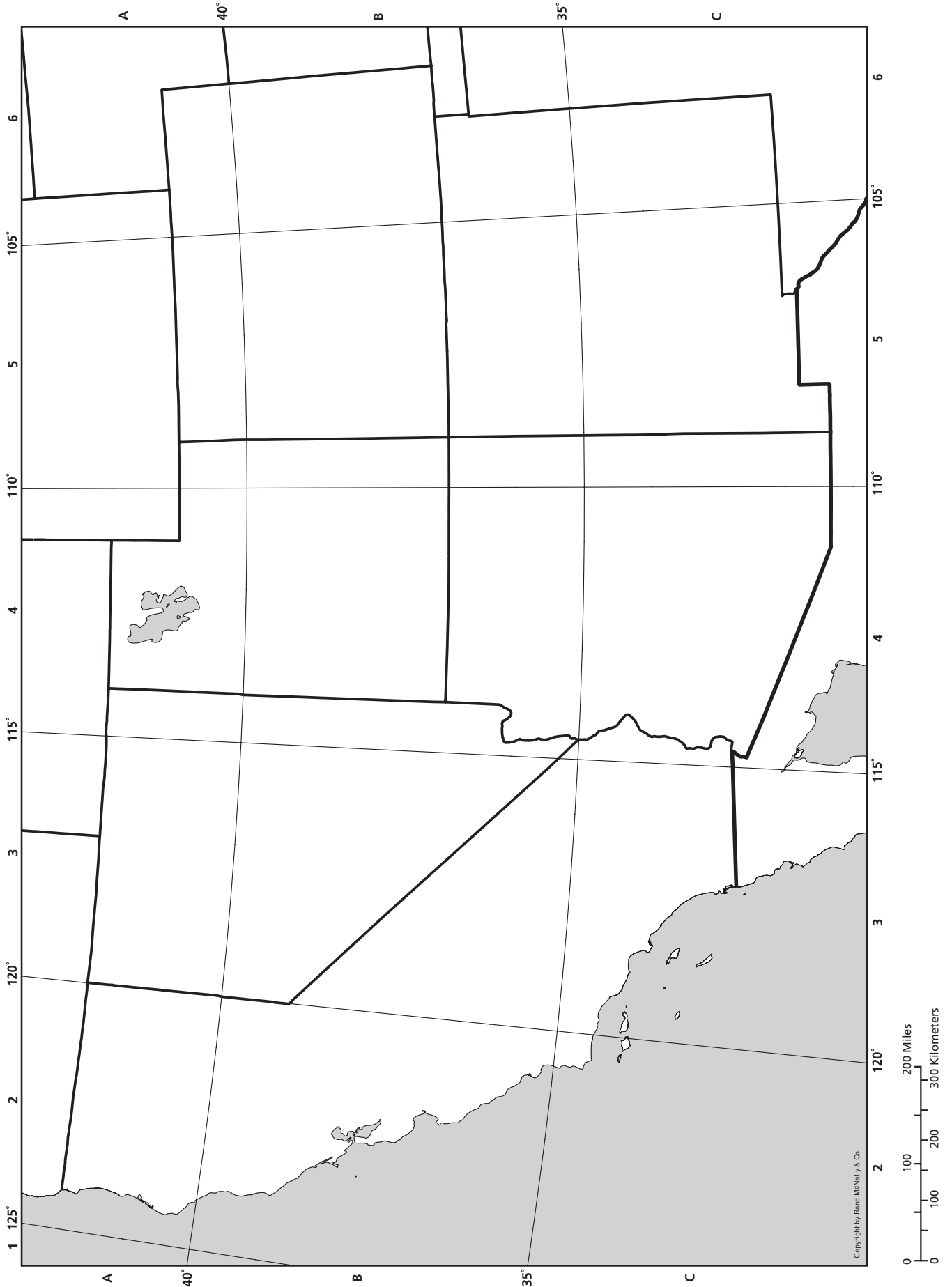


South Central Region Outline Map



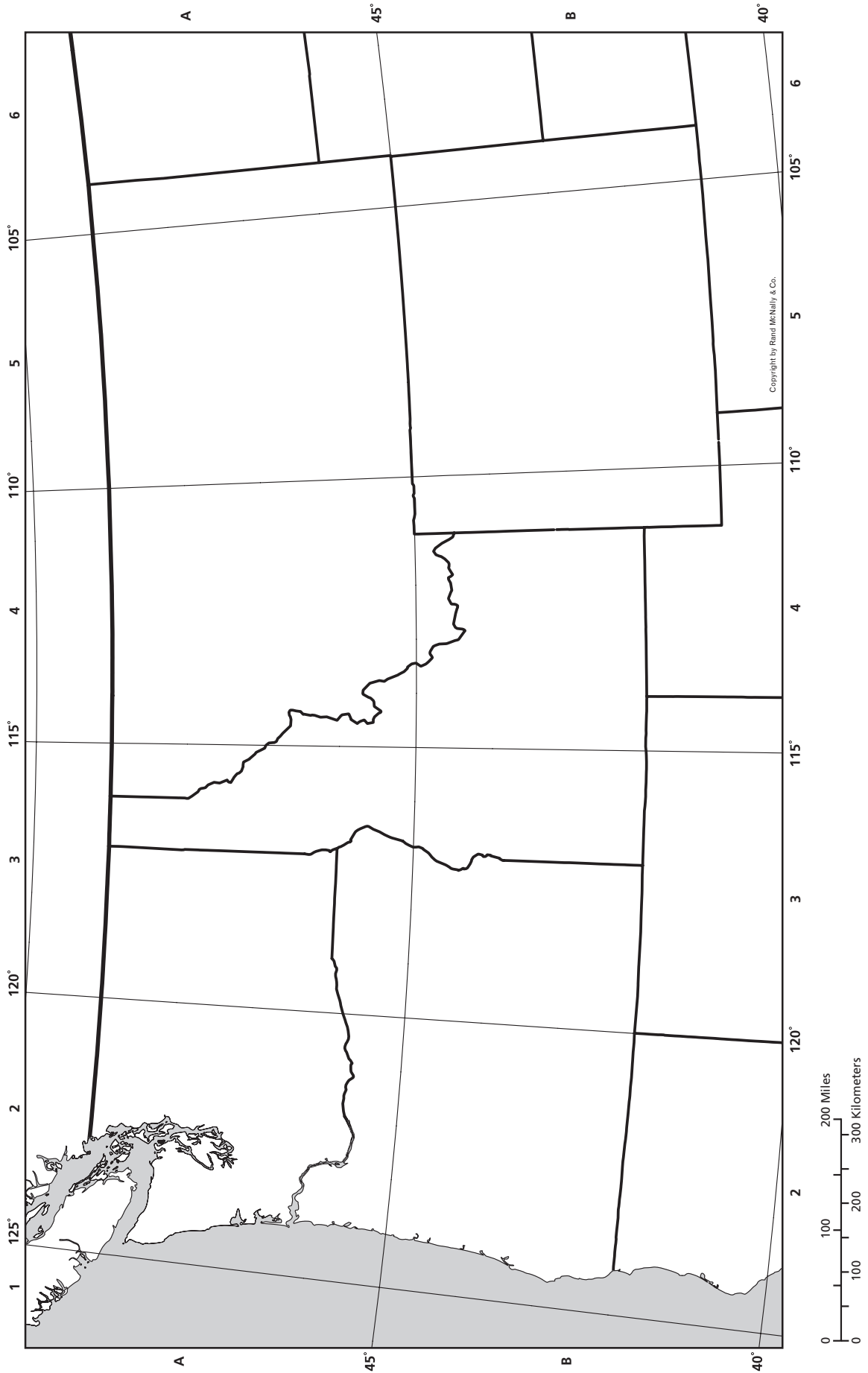


Southwest Region Outline Map



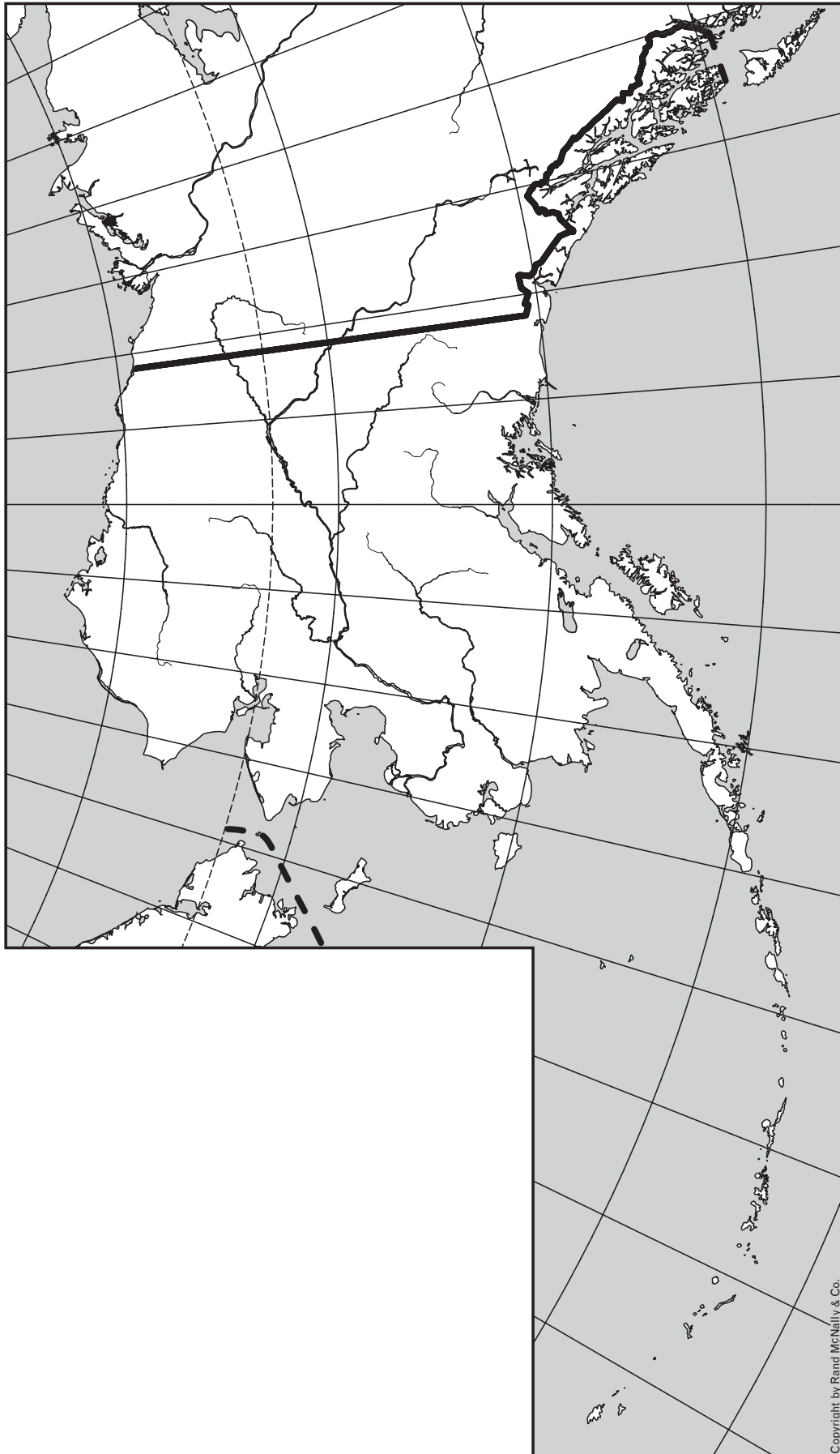


Northwest Region Outline Map





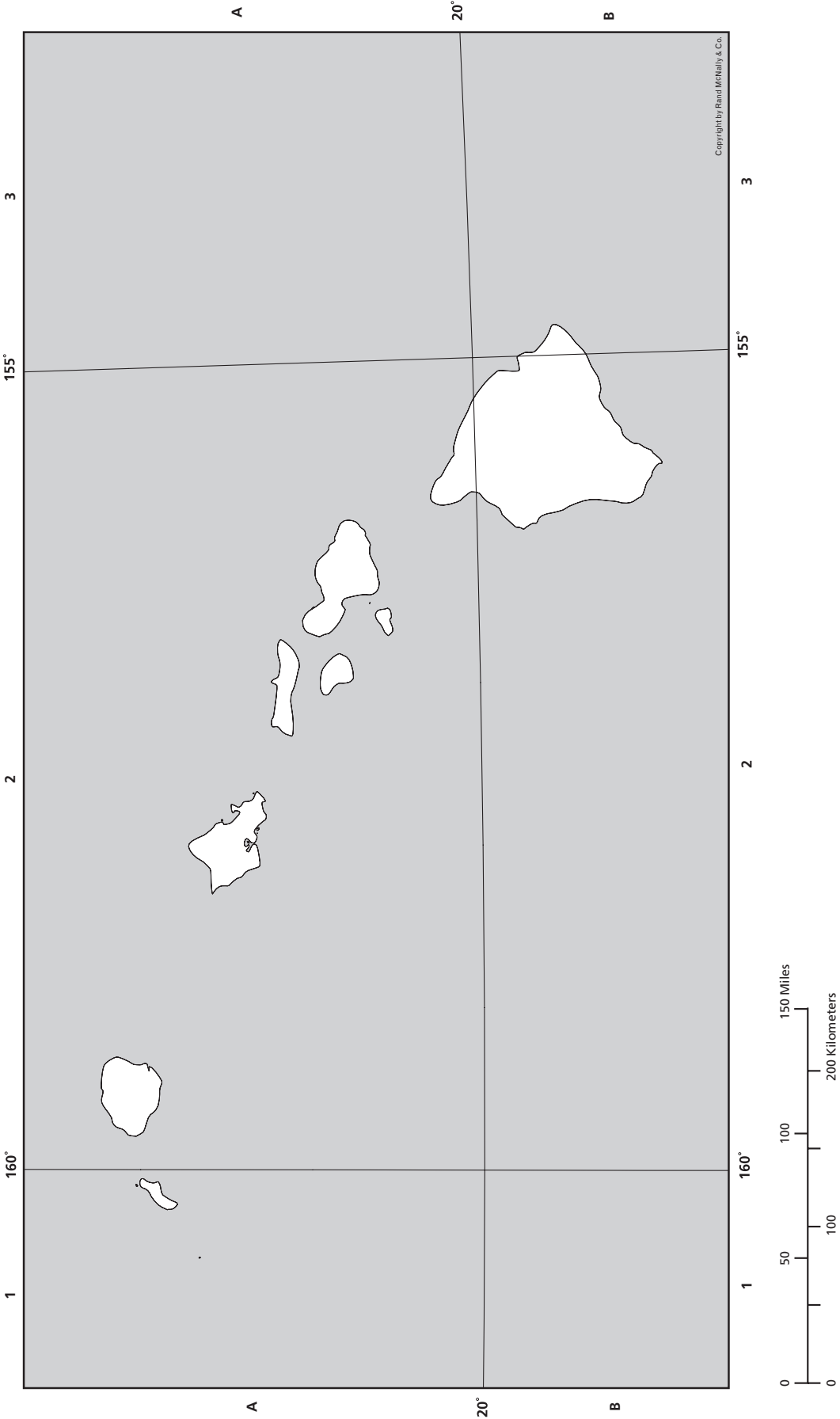
Alaska Outline Map



Copyright by Rand McNally & Co.



Hawaii Outline Map





The Thirteen Colonies Outline Map



Copyright by Rand McNally & Co.

