

http://www.amazon.com/Geography-Physical-Student-GLENCOE-GEOGRAPHY/dp/0076642887/ref=sr_1_1?s=books&ie=UTF8&qid=1445589220&sr=1-1&keywords=geography+the+human+and+physical+world



Enduring Understandings

- The characteristics and distribution of cultures influence human systems.
- Culture influences people's perceptions of places and regions.
- The characteristics and distribution of human populations affect physical and human systems.

Essential Question

- How do physical systems and human systems shape a place?

Students will know:

- the landforms, water system, climate regions, biomes, and natural resources of Latin America
- how Latin America's physical geography affects climate, population patterns, and economic development
- how Native American empires and colonial rule influenced Latin America's history, culture, and political and social structures
- the population characteristics of Latin America today
- the causes and effects of environmental issues in Latin America and efforts to address these issues
- how economies in Latin America have become part of the global economy

Students will be able to:

- **describe** natural features of Latin America.
- **analyze** how Latin America's physical geography affects the people that live there
- **explain** the influence of indigenous peoples and Europeans on Latin America's history and culture
- **identify** causes and effects of and possible solutions to environmental issues
- **describe** population patterns and economic activities of Latin America
- **discuss** history, governments, and cultures of Latin America

Predictable Misunderstandings

- All of Mexico has the same warm climate.
- Most people in Mexico live in poor, rural areas.
- Mexico does not have many natural resources.
- Mexico has a pristine, undisturbed environment.
- The water supply for Central America and the Caribbean comes from the surrounding oceans.
- People living in Central America and the Caribbean are of Spanish descent.
- Deforestation is an issue in South America, but not Central America.
- The geography and climate is the same throughout South America.
- People living in South America are all of Spanish descent.
- Desertification only happens near deserts.

Assessment Evidence

Performance Tasks:

- Environmental Case Study
- GeoLab Activity
- GIS Simulations
- Hands-On Chapter Projects

Other Evidence:

- Location Activity
- Self-Check Quizzes
- Lesson Quizzes
- Participation in Interactive Whiteboard Activities
- Contribution to small-group activities
- Interpretation of slideshow images
- Participation in class discussions about Latin America
- Analysis of graphic organizers, graphs, and charts
- Lesson Reviews
- Chapter Assessments

Key for Using the Teacher Edition

SKILL-BASED ACTIVITIES

Types of skill activities found in the Teacher Edition.

- V Visual Skills** require students to analyze maps, graphs, charts, and photos.
- R Reading Skills** help students practice reading skills and master vocabulary.
- C Critical Thinking Skills** help students apply and extend what they have learned.
- W Writing Skills** provide writing opportunities to help students comprehend the text.
- T Technology Skills** require students to use digital tools effectively.

*Letters are followed by a number when there is more than one of the same type of skill on the page.

DIFFERENTIATED INSTRUCTION

All activities are written for the on-level student unless otherwise marked with the leveled labels below.

- B Beyond Level**
- A Approaching Level**
- EL English Language Learners**

All students benefit from activities that utilize different learning styles. Many activities are marked as below when a particular learning style is highlighted.

- | | |
|-------------------------------|---------------------------|
| I Intrapersonal | N Naturalist |
| L Logical/Mathematical | K Kinesthetic |
| V Visual/Spatial | A Auditory/Musical |
| Verbal/Linguistic | I Interpersonal |

SUGGESTED PACING GUIDE

Introducing the Unit	1 Day
Chapter 7: Mexico	5 Days
Case Study: Development in Haiti	1 Day
Chapter 8: Central America and the Caribbean	5 Days
Chapter 9: South America	5 Days
Global Connections: Deforestation in Amazon	1 Day

TOTAL TIME 18 Days



Vizální dovednosti, Čtení, Kritické myšlení, psaní, používání technologií
 Tištěná verze, Online – verze, Pracovní listy

Print Teaching Options

V Visual Skills

- p. 165 Students analyze details of the photograph of a coastal city. [Visual/Spatial](#)
- p. 166 Students analyze details of the photograph of people participating in a parade. [Visual/Spatial](#)
- p. 169 Students create charts about the countries and capital cities in Latin America. [Visual/Spatial](#)

R Reading Skills

- p. 166 Students identify regions and geographical landforms in Latin America. [Verbal/Linguistic](#)
- p. 168 Students analyze the physical features of Latin America on a map. [Verbal/Linguistic, Visual/Spatial](#)

C Critical Thinking Skills

- p. 166 Students discuss what it means for cultures to collide. [Logical/Mathematical, Interpersonal](#)
- p. 167 Students draw conclusions about why people move from rural areas to cities. [Logical/Mathematical](#)
- p. 168 Students evaluate a map and map key to make assumptions about landforms and elevations. [Logical/Mathematical, Visual/Spatial](#)
- p. 172 Students compare population density maps to explain how physical features relate to human settlements. [Verbal/Linguistic, Visual/Spatial](#)

W Writing Skills

- p. 167 Students imagine they are visiting a rain forest and write a story about the experience. [Naturalist, Verbal/Linguistic](#)
- p. 170 Students write a description of the vegetation associated with climate zones. [Naturalist, Verbal/Linguistic](#)
- p. 171 Students imagine they represent an investment agency and write a promotional material to attract foreign investors. [Interpersonal, Visual/Spatial](#)

T Technology Skills

- p. 167 Student research mountains in Latin America and create a graphic organizer to present data and information on the mountains. [Verbal/Linguistic, Visual/Spatial](#)
- p. 171 Students analyze news media to discuss current economic conditions in Latin America. [Kinesthetic, Verbal/Linguistic](#)
- p. 172 Students research Mexico City in groups and then create a presentation that includes charts, maps, and visuals that group members will present to the class. [Interpersonal](#)

Online Teaching Options Pages: 2-3/36

V Visual Skills

- INTERACTIVE FEATURE** Explore the Region: Latin America—Students create a two-column chart with headings for Physical Geography and Human Geography and list elements of each as they preview four distinct locations in Latin America. [Naturalist, Verbal/Linguistic](#)
- INTERACTIVE MAP** Political Map: Latin America—Students analyze a map to identify and discuss the location of capital cities. [Visual/Spatial](#)

R Reading Skills

- INTERACTIVE MAP** Regional Atlas: Latin America—Students analyze this map on Latin America to discuss the physical diversity of the region. [Visual/Spatial, Logical/Mathematical](#)

C Critical Thinking Skills

- INTERACTIVE MAP** Physical Map: Latin America—Students analyze a map to make speculations about the reasons Europeans set up colonies in Latin America.
- INTERACTIVE MAP** Economic Activity Map: Latin America—Students use the map to make inferences about an area's wealth and economic status. [Visual/Spatial](#)

W Writing Skills

- INTERACTIVE MAP** Population Map: Latin America—Students analyze a map and write to explain coastal population settlements. [Verbal/Linguistic](#)
- INTERACTIVE MAP** Climate and Vegetation Maps: Latin America—Students write about where they would choose to live based on the maps. [Naturalist, Verbal/Linguistic](#)

Printable Digital Worksheets

V Visual Skills

- WORKSHEET** Location Activity—Students locate countries, islands, and major cities in Mexico, Central America, the Caribbean, and South America.

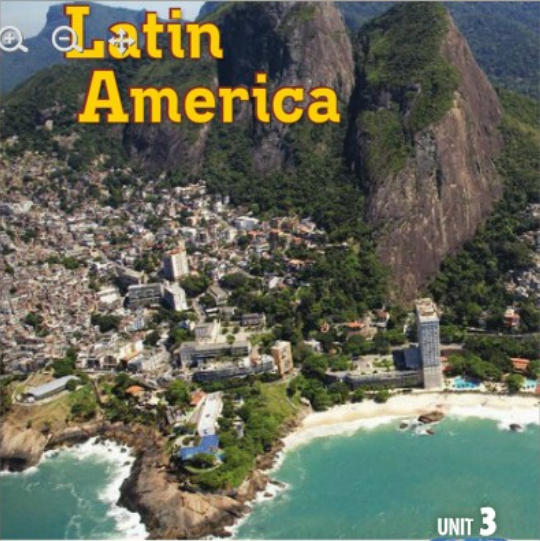
R Reading Skills

- WORKSHEET** GIS Simulation—Students will answer questions that demonstrate their comprehension and depth of knowledge using the graphic information systems approach.

C Critical Thinking Skills

- WORKSHEET** Environmental Case Study—Students will complete a study about an environmental challenge currently facing a region in Latin America.
- WORKSHEET** GeoLab Activity—Students explore how changes in the environment are threatening coral reef in the Caribbean.

Latin America



UNIT 3

Chapter 7
Mexico


Chapter 8
Central America and
the Caribbean

Chapter 9
South America

INTERACTIVE MAP

Regional Atlas: Latin America

Analyzing Images Have students analyze this map of Latin America to introduce them to the physical diversity of the region. Ask students how mountain ranges typically affect the way that people live and how countries develop. (Students should note that people near mountains tend to live in small communities that are isolated from large centers of populations.) Ask students how coastlines typically affect the way that people live and how countries develop. (Students should note that people tend to live along the coast and that most large centers of populations are along the coast.) Ask students to discuss the complexity of the image presented on the opening page with the general population pattern. [Logical/Mathematical, Visual/Spatial](#)



ENGAGE

Assessing Invite a student volunteer to locate Latin America on a globe or map. Guide students in a class discussion about Latin America. Assess students' knowledge about Latin America by asking them to describe what they know about the region, such as the countries that are located there, famous landforms or travel locations, languages spoken in the region, or how it came to be known as Latin America.

Content Background Knowledge

Origins of the Name Latin America

- The main languages spoken in the region—Spanish and Portuguese—are derived from Latin.
- In the 1830s, a French writer postulated that the region was inhabited by people of a "Latin race."
- In the 1860s, France argued that the region had Latinate origins and therefore belonged in the sphere of countries speaking Latinate languages.
- The term did not achieve widespread use until the 1950s and 1960s.

TEACH & ASSESS

Analyzing Images Call students' attention to the photograph and have them analyze its details. **Ask:** Suppose you are a travel writer, how might you describe this place? (Possible answers: It is a coastal city; it has unusual mountains, a rocky promontory, hillside neighborhoods, varied architecture, a beautiful sandy beach and cerulean waters.) **How could you describe the elevation of the city? (starts at sea level and rises sharply?) What famous place is in this picture? (Copacabana Beach in Rio de Janeiro, Brazil?)** Explain to students that Latin America is a diverse region. Have them explain how this photo exemplifies this diversity. Then, **ask:** How might this place be a microcosm of Latin America in general? (Student answers may vary, but could include varied landscapes that range from beach to mountain to jungle.) [Visual/Spatial](#)

CLOSE & REFLECT

Listing Have students state facts they know about the geography, culture, and history of Latin America. Tell students they will be learning more about the region in this unit.

165B

Latin America 165

ENGAGE

V Visual Skills

Analyzing Images Encourage students to analyze the image by asking the following series of questions, ask: **What is happening in the photo?** (people holding a parade) **Where might this be?** Explain. (Possible answer: It might be in the old part of a city because there are old looking buildings and churches in the photo.) **What can you tell about the people?** (dressed in traditional garb or costumes; native ethnicity) **What does this tell you about the culture of Latin America?** (Possible answers: people are religious; people value old traditions; a mix of old and new; celebrating an event or marching in a traditional parade) **Visual/Spatial**

TEACH & ASSESS

C Critical Thinking Skills

Interpreting Discuss what it means for cultures to collide. **Ask:** Does the phrase "cultures have collided" mean the cultures are at odds or at war? (Possible answer: In some cases, yes, but in other cases it means they have melded or blended. The people of the region have held to old customs, but have taken on new ones.) **In the case of Latin America, what cultures have collided or blended?** (the native or indigenous with Europeans) **Brainstorm** which Europeans first settled in Latin America. (Spanish and Portuguese, followed by French) Have students discuss what they know about the colonial history of the region and how it compares to the history of North America. **Interpersonal, Logical/Mathematical**

R Reading Skills

Identifying Have a student volunteer read aloud the section "Explore the Region." **Ask:** What regions make up Latin America? (Mexico, Central America, the Caribbean, and South America) **Which of these is a continent?** (South America) **What are some important geographical landforms in Latin America?** (Andes Mountains, rain forests, Amazon River) Have students name as many countries as they can in Central and South America, as well as some of the countries that make up the Caribbean Islands. **Verbal/Linguistic**



1 Culture Latin America is a region where cultures have collided. Native cultures are blended with those of Europeans. Today, the foods, clothing, and customs of many Latin Americans reveal their mixed heritage.

EXPLORE the REGION

Spanning more than 85 degrees of latitude, **LATIN AMERICA** encompasses Mexico, Central America, the Caribbean, and South America. It is a region of startling physical contrasts, from the high peaks of the Andes to the lush rain forests of the Amazon. Latin America's human geography reflects a shared colonial legacy, but does present some contrasts between urban and rural, rich and poor, more developed and less developed.

THERE'S MORE ONLINE

networks Online Teaching Options

INTERACTIVE FEATURE

Explore the Region: Latin America

Previewing This interactive feature showcases four distinct locations within Latin America to provide students with a preview of the region's rich diversity. Before starting the activity, have students create a two-column chart with the headings *Physical Geography* and *Human Geography*. Click through each of the interactive features and have students list diverse elements presented under each heading. Then guide a class discussion as students share their lists to contrast the physical and human geography of Latin America. **Naturalist, Verbal/Linguistic**



C Critical Thinking Skills

Drawing Conclusions Point out to students that this photograph shows a famous cathedral in one of the world's largest cities, Mexico City. **Ask:** Why do you suppose many people in Latin America are moving from rural areas to cities? (mainly for work or economic advancement) **Why would opportunities be better in a city than in a rural area?** (more businesses; need for service providers) **What are the pros and cons of living and working in a city?** (Possible answers: cities offer work opportunities, cultural advantages, many services, but are crowded and sometimes unhealthy; rural areas offer a quieter life, close knit communities but fewer opportunities and services.) **What affect does rapid population growth have on cities?** (Possible answers: strains on city services, housing, and infrastructure) **Logical/Mathematical**

W Writing Skills

Narrative Review what students know about rain forests and their importance. Have students imagine that they are visiting a rain forest in one of the regions in Latin America. Have them write a story about their experience, making sure they describe the flora, fauna, and important features of the region. **Naturalist, Verbal/Linguistic**

T Technology Skills

Researching Have students research some of the major mountain chains found in Latin America, such as the Andes, Sierras, Alps, Rockies, and Himalayans. Have students create a graphic organizer that ranks these mountains in terms of length, height, most volcanoes, or other unique features. Then have students present their findings to the class. **Verbal/Linguistic, Visual/Spatial**

CLOSE & REFLECT

Reaching Conclusions Review the various factors that have been introduced to students in this unit feature. Ask students to consider all of these factors and write a concluding statement about Latin America.



3 Rain Forests Like a snake slithering through the grass, the Amazon River meanders through the Peruvian rain forest.

4 Mountains The jagged peaks of Chile's Torres del Paine are part of the Andes, the world's longest mountain chain.

2 Cities Many people migrate to urban centers such as Mexico City where work offers the possibility of economic advancement. This rapid growth forces cities to look for ways to provide their growing populations with necessary resources.

WORKSHEETS

Latin America

Demonstrating Use these unit digital worksheets to have students demonstrate their depth of knowledge and comprehension, and to provide them with extended unit content through project-based and case studies activities.

- Environmental Case Study
- GIS Simulation
- Location Activity





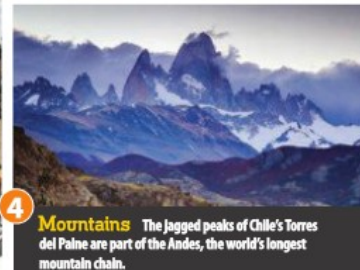
1 Culture Latin America is a region where cultures have collided. Native cultures are blended with those of Europeans. Today, the faces, clothing, and customs of many Latin Americans reveal their mixed heritage.



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EXPLORE the REGION

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THERE'S MORE ONLINE

ENGAGE

Reading Skills

Activating Prior Knowledge Before class, write out the names of the five or six most iconic physical features of Latin America, such as the Andes, the Sierra Madre, the Amazon, the Isthmus of Panama, Tierra de Fuego, and Cape Horn. Challenge students to name the country in which each is located. Tell students that they will be learning more about these and other geographical features of Latin America as they study the maps in this unit.

TEACH & ASSESS

Critical Thinking Skills

Evaluating Ask students to focus on the map key and to note what the different colors represent. Ask: **Which color represents the highest elevations?** (dark orange) **What assumptions can you make about the landforms that represent the areas at the highest elevations?** (mountain ranges) **Where would you expect to find the lowest elevations?** (beaches, river deltas) Have students examine the map to see if their hypotheses are accurate. **Logical/Mathematical, Visual/Spatial**

Reading Skills

Analyzing Visuals Have students analyze the physical features of Latin America. Ask:

- Where are the highest elevations found in South America? (along the western rim)
- Would you say most of South America is lowlands or highlands? (lowlands)
- What about Mexico, Central America, and the Caribbean Islands? (Mexico: mostly highlands; Central America and the Caribbean: mostly lowlands)
- Which mountain range is highest? (Andes)
- What do you notice about the flow of the major river systems in South America? (drain into the Atlantic Ocean)

Have students locate and discuss the land barriers in Latin America that may have slowed human travel and development. **Verbal/Linguistic, Visual/Spatial**

ANSWERS, p. 168

MAP STUDY

1. Mountains, rivers, and the rain forest present physical barriers to the development of Latin America.
2. France, the Netherlands, and the United Kingdom still control territory in Latin America.

Physical

UNIT 3 REGIONAL ATLAS
MAP STUDY

1. **Environment and Society** What physical features could present barriers to the development of Latin America?
2. **Human Systems** What European countries still control territory in Latin America?

netw@rks Online Teaching Options

INTERACTIVE MAP

Physical: Latin America

Speculating Display the interactive map to discuss the physical diversity of Latin America, the effect of the region's proximity to the equator on climate, and its opening to European colonization. Ask students to speculate on reasons why Europeans were interested in setting up colonies, as well as reasons why this region continues to hold economic interest for many countries around the world. **Visual/Spatial, Logical/Mathematical**

Political

UNIT 3 REGIONAL ATLAS
MAP STUDY

netw@rks Online Teaching Options

INTERACTIVE MAP

Political Map: Latin America

Spatial Analysis Use this map to discuss the location of capital cities. Have students locate and identify several capital cities of countries in Latin America, specifically pointing out Guatemala, San Salvador, Managua, San Jose, and Panama. Have students form small groups. Ask groups to discuss what they have learned about centers of population and how this might relate to the location of these capital cities. Then have them locate other capital cities that have similar spatial locations. Students should note that many capital cities are located along the coast lines, which are often the

Next page

Visual Skills

Creating Charts Discuss the purpose of political maps and the kinds of information that can be gained from them. (Locations of countries, national boundaries, capital and other cities, major bodies of water and waterways) Have students use the map to make a chart of the countries of Latin America and their capitals. Challenge students to make comparisons about the countries and add these to the chart, noting such things as biggest, smallest, coastal, landlocked, and other facts. **Visual/Spatial**

Reading Skills

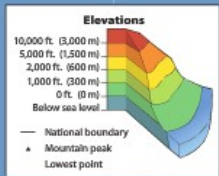
Reading Maps Ask students to explain the purpose of the inset on the map. Ask a student volunteer to explain the difference between an independent nation and a dependent territory. Have students name the major Caribbean Islands and identify which islands are dependent territories and to what country each belongs. **Verbal/Linguistic, Visual/Spatial**

Making Connections

The United States has a large population of people from Puerto Rico, Cuba, and other Caribbean Islands. These islands are also popular vacation destinations. Invite students who have visited any of these islands or have other connections to them to describe their experiences.

Writing Skills

Informative/Explanatory Ask students to find recent news articles about countries located in Latin America. Topics could include presidential elections, political uprisings, economic forecasts, land or resource disputes, climate-related problems, or natural disasters. Have students write headlines for each of these stories. Use these headlines to lead a class discussion on current events in Latin America. Have students locate each country on the political map of Latin America. **Verbal/Linguistic**



UNIT 3
REGIONAL ATLAS

MAP STUDY

- 1. Environment and Society** What physical features could present barriers to the development of Latin America?
- 2. Human Systems** What European countries still control territory in Latin America?

- National capital
- ◐ Department capital
- Major city



Pages: 8-9/36

C Critical Thinking Skills

Drawing Conclusions Ask: Have students use the map key to identify the major climate zones in Latin America. Review what the blue and red arrows on the map indicate. Invite students to brainstorm how the Peru and Brazil currents influence climates along the coasts.

- **What can be said about the climate of Mexico?** (diverse; ranges from arid to tropical rain forest) **And of South America?** (even more diverse)
- **Where is the climate coldest in Latin America?** (in western South America in the Andes and at the very tip of the continent in the high latitudes where it is closest to Antarctica)
- **What is the relationship, if any, between the climate zones and their proximity to the equator?** (Generally climates are warmest near the equator.)
- **How does elevation affect this overall pattern?** (Mountainous areas on the equator have cooler temperatures than lowland areas due to elevation.)

Logical/Mathematical, Visual/Spatial, Verbal/Linguistic

Content Background Knowledge

Ocean Currents The Peru Current, also called the Humboldt Current, is a cold-water current. It has a cooling influence on the climate of Chile, Peru, and Ecuador. This cooling effect also retards rain production in the region. The Brazil Current is a warm-water current. It has a warming influence on the Brazilian coast, providing tourists with warm, sun-drenched beaches.

W Writing Skills

Informative/Explanatory Have students compare the climate map to the vegetation map of Latin America. Have students write a paragraph describing the vegetation associated with each climate zone. [E1](#) [Naturalist](#), [Verbal/Linguistic](#)



UNIT 3 REGIONAL ATLAS MAP STUDY

1. **Physical Systems** What are the predominant types of natural vegetation in the Tropics?
2. **Places and Regions** What generalizations can you make about the locations of the region's manufacturing areas?

C Critical Thinking Skills

Analyzing Visuals Have students focus on the map key to identify the areas of Latin America that support commercial farming, commercial forestry, livestock raising, and manufacturing. Have students brainstorm geographic conditions that provide a country with economic advantages. (Possible answers: size, favorable climate, good farmland, river systems, coastline, and mineral wealth.) Then ask students to study the map and identify which countries have these advantages. [Logical/Mathematical](#), [Visual/Spatial](#)

T Technology Skills

Analyzing News Media Divide students into pairs or small groups. Ask students to conduct online research to find recent news articles about the economies of different countries of Latin America. Topics could include manufacturing and/or agricultural news, stock indexes, inflation, unemployment, commodity prices, GDP data, foreign or domestic investment, and trade agreements and/or statistics. Have students use these articles to lead a class discussion on current economic conditions in Latin America. Students should tag each story to their location on a map of the region. [E1](#) [Kinesthetic](#), [Verbal/Linguistic](#)

W Writing Skills

Informative/Explanatory As a class, discuss how the presence of natural resources can benefit a country and attract outside investors. Divide students into groups and assign each group a country of Latin America to explore. Have students use the map to identify the mineral resources of that country. Have students imagine that they represent an Investment promotion agency. Have them write a promotional piece designed to attract foreign investors to their country. [E1](#) [Interpersonal](#), [Verbal/Linguistic](#)

netw@rks Online Teaching Options

INTERACTIVE MAP

Climate and Vegetation Map: Latin America

Narrative Display the interactive maps, allowing time for students to analyze and discuss the climate patterns and vegetation in the various regions. Then ask students to write a brief essay explaining where they would choose to live in Latin America based on data they analyzed from the climate and vegetation maps. Invite several volunteers to share their essays with the class. [E1](#) [Naturalist](#), [Verbal/Linguistic](#)

INTERACTIVE MAP

Economic Activities Map: Latin America

Inferring This map can be used with students to discuss the economy and financial status of various areas within Latin America. Click through the interactive layers of this map. Guide a class discussion about which countries students can infer are the wealthiest or poorest countries based on their land uses and resources. Then have students choose one location to research further to see if their hypothesis about that country's financial status is correct. Have students report their findings to the class. [E1](#) [Visual/Spatial](#)

Next page

ANSWERS, p. 171

MAP STUDY

1. The predominate types of natural vegetation are tropical rain forest, tropical grassland, and desert scrub and waste.
2. Mexico has manufacturing and trade in various locations along the coast and in the interior where large cities are located. In South America, manufacturing and trade locations are primarily located along the coasts.

C Critical Thinking Skills

Evaluating Discuss the meaning of population density. (average number of people living in a square mile area) Have students focus on the map key. Ask: Which color represents the highest population density? (purple) The lowest? (light yellow) Without looking at the map, where would you expect to find the highest population densities in Latin America? (around big cities; coastal areas) The lowest? (mountain or desert areas) Have students examine the map to see if their hypotheses are accurate. **Logical/Mathematical, Visual/Spatial**

C Critical Thinking Skills

Comparing Have students describe the population density of Mexico. Ask: Where are population densities the greatest in Mexico? (in the southern half of the country, particularly around cities) How do the population densities of the countries of Central America compare? (They have a similar range of densities but none of the cities are as densely populated as Mexico City.) The Caribbean Islands? (lots of high densities areas; no cities over 5,000,000; few low density areas) South America? (similar population density range but a greater percentage of low density areas) Have students compare the population density map to the physical map of Latin America. Ask them to explain how population density relates to landform regions, such as which physical features discourage dense settlements and which attract them. **Verbal/Linguistic, Visual/Spatial**

T Technology Skills

Presenting Have students explain what the map tells them about the population of Mexico City. (over 5,000,000 people) Tell students that Mexico City is one of the most populated cities in the world. Divide students into small groups and have them research Mexico City and its population makeup. Encourage students to make a presentation to the class using charts, maps, and photographs. **Interpersonal**

CLOSE & REFLECT

Summarizing Divide students into pairs. Have partners review the unit maps and use them to make a list of important information about the geography of Latin America.

ANSWERS, p. 172

MAP STUDY

1. In Central and South America, people live along the coast due to the rough terrain—mountains and tropical rain forests—in the interior of the continent.
2. Large cities are usually located along the coast.



netw@rks Online Teaching Options

INTERACTIVE MAP

Population Map: Latin America

Analyzing Visuals Use this map to provide students with a visual of settlement patterns in Latin America. Have students read the interactive text layers in the map. Students should work with a partner to discuss living patterns in Latin America. Then ask pairs to consider how and why population patterns have developed in these areas by writing a short paragraph that explains their answers. **Verbal/Linguistic**

Mexico Planner

UNDERSTANDING BY DESIGN®

Enduring Understandings

- The characteristics and distribution of cultures influence human systems.

Essential Question

- How do physical systems and human systems shape a place?

Predictable Misunderstandings

Students may think:

- All of Mexico has the same warm climate. Explain that Mexico has vertical climate zones. Even though it is located closer to the equator than the United States, its climates vary based on elevation.
- Most people in Mexico live in poor, rural areas. Explain that Mexico City, the nation's capital, is a megacity, and home to millions of people.

Assessment Evidence

Performance Tasks:

- Hands-On Chapter Project

Other Evidence:

- Guided Reading Activities
- Vocabulary Activities
- Lesson Quizzes
- Chapter Tests, Forms A and B

SUGGESTED PACING GUIDE

Introducing the Chapter.....	1/2 Day	Lesson 3.....	1 Day
Lesson 1.....	1 Day	Chapter Wrap-Up and Assessment.....	1/2 Day
Lesson 2.....	2 Days		
		TOTAL TIME	5 Days

Key for Using the Teacher Edition

SKILL-BASED ACTIVITIES

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- Verbal/Linguistic**
- N Naturalist**
- K Kinesthetic**
- A Auditory/Musical**
- I Interpersonal**

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Standards covered in

- The student knows and understands:
- (3) How to analyze the spatial organizations of people, places, and environments on Earth's surface
 - 3.1 The meaning and use of complex spatial concepts, such as connectivity, networks, hierarchies, to analyze and explain the spatial organization of human and physical phenomena
 - (4) The physical and human characteristics of places
 - 4.2 The interaction of physical and human systems result in the creation of and changes to places
 - (7) The physical processes that shape the patterns of Earth's surface
 - 7.3 Physical processes interact over time to shape particular places on Earth's surface
 - (8) The characteristics and spatial distribution of ecosystems and biomes on Earth's surface
 - 8.1 Ecosystems are dynamic and respond to changes in environmental conditions
 - (9) The characteristics, distribution, and migration of human populations on Earth's surface
 - 9.2 Population distribution and density are a function of historical, environmental, economic, political, and technological factors
 - (12) The processes, patterns, and functions of human settlement
 - 12.2 Settlements can grow and/or decline over time
 - (14) How human actions modify the physical environment
 - 14.1 Human modifications of the physical environment can have significant global impacts
 - 14.1.A Explain the global impacts of human changes in the physical environment
 - 14.2 The use of technology can have both intended and unintended impacts on the physical environment
 - (15) How physical systems affect human systems
 - 15.1 Depending on the choice of human activities, the characteristics of the physical environment can be viewed as both opportunities and constraints
 - (18) How to apply geography to interpret the present and plan for the future
 - 18.1 Geographic contexts (the human and physical characteristics of places and environments) provide the bases for analyzing current events and making predictions about future issues

CHAPTER OPENER PLANNER

PHYSICAL GEOGRAPHY OF MEXICO



Students will know:

- the landforms, water system, climate regions, biomes, and natural resources of Mexico and how the physical environment impacts human systems.
- how Native American empires and colonial rule influenced Mexico's history, culture, and political and social structures.
- how the Mexican economy has become part of the global economy.
- the causes and effects of environmental issues in Mexico and efforts to address these issues.

Students will be able to:

- describe natural features of Mexico.
- analyze how Mexico's environment affects the people that live there.
- explain the influence of indigenous peoples and Europeans on Mexico's history and culture.
- describe Mexico's population today.
- discuss Mexico's role in the global economy.
- identify causes and effects of environmental issues.

UNDERSTANDING BY DESIGN®

Print Teaching Options

Visual Skills

- p. 174 Students analyze a map to discuss the boundaries of Mexico City. [V](#) [L](#) [S](#) [P](#)
- p. 175 Students analyze an aerial image of Mexico City.

Reading Skills

- p. 174 Students discuss day to day life for new migrants to Mexico City. [L](#) [L](#) [M](#) [M](#)

Critical Thinking Skills

- p. 174 Students list advantages and disadvantages of urbanization in a chart.

Writing Skills

- p. 174 Students write letters to government officials describing their solutions for the rapid urban growth problems. [V](#) [L](#) [L](#)

Technology Skills

- p. 175 Students highlight problems of urbanization and present images with commentary. [V](#) [S](#) [P](#) [I](#) [S](#)

Online Teaching Options

- SLIDE SHOW** Dealing with Rapid Urban Growth—Students take notes on how Mexico City is dealing with urban growth and organize the notes into an outline that can be added to. [L](#) [L](#) [L](#)

- INTERACTIVE MAP** Mexico City Growth—Students discuss rapid population growth in Mexico City and speculate with a partner reasons areas have recently become densely populated. [L](#) [L](#) [M](#) [M](#)

Printable Digital Worksheets

- WORKSHEET** Assessing Background Knowledge—Determine the level of prior knowledge students have about Mexico and Mexico City.

- WORKSHEET** Vocabulary Activity—Students use and improve their academic and content vocabulary by completing various vocabulary activities.

Project-Based Learning

Hands-On

Create Population Pyramids

Students will work on their own to create a population pyramid based on independent research they gather about the demographics of Mexico.

Digital Hands-On

Create Online Projects

Find an additional activity online that incorporates technology for this project. Visit the EdTech Teacher Web sites for more links, tutorials, and other resources.



Print Resources

ANCILLARY RESOURCES

This ancillary is available for every chapter and lesson.

- Chapter Tests and Lesson Quizzes

PRINTABLE DIGITAL WORKSHEETS

These printable digital worksheets are available for every chapter and lesson.

- Assessing Background Knowledge
- Chapter Summaries
- Guided Reading Activities
- Hands-On Chapter Projects
- Quizzes and Tests
- Reading Essentials and Study Guide [L](#) [L](#)
- Reteaching Activities
- Vocabulary Activities
- Video Activities

More Media Resources

SUGGESTED VIDEOS

- **Introducing the History and Culture of Mexico** (31 min.)
- **Down of the Maya** *National Geographic* (60 min.)
- **Weekend in Mexico City** (30 min.)

SUGGESTED READING

- *Caring at the Edge: Artists Respond to the U.S. Mexico Border*, by Kate Bonansinga
- *A Weekend with Diego Rivera*, by Barbara Braun
- *Mexico: A Study of an Economically Developing Country*, by Anna Levington
- *A Land Between Waters: Environmental Histories of Modern Mexico*, by Christopher R. Boyer

Students will know:

- the landforms and water systems of Mexico.
- the climate regions of Mexico and their impact on the physical environment.
- the characteristics of Mexico's biomes.
- how Mexico's physical environment impacts human systems.
- the characteristics, location, and uses of natural resources in Mexico.

Students will be able to:

- describe the landforms, water systems, climate regions, and biomes of Mexico.
- explain the impact of Mexico's physical environment on people.
- identify natural resources in Mexico.

UNDERSTANDING BY DESIGN®

Print Teaching Options

Visual Skills

- p. 176 Students make a mental map of Mexico in relation to the United States and Central America, then draw their map and compare it to an actual map. [L](#) [L](#) [S](#) [P](#)
- p. 177 Students study the information on a plate tectonics diagram. [L](#) [L](#) [S](#) [P](#)
- p. 178 Students discuss the diagram on vertical climate zones. [L](#) [L](#) [S](#) [P](#)

Reading Skills

- p. 176 Students brainstorm what they already know about the physical geography of Mexico.
- p. 178 Students work together to translate the names of each climate zone into English. [L](#) [L](#) [L](#)
- p. 179 Students identify factors that affect Mexico's climates and explain the relationship between factors and effects they can produce. [V](#) [L](#) [L](#) [L](#) [N](#)

Critical Thinking Skills

- p. 176 Students classify landforms in Mexico in a graphic organizer. [L](#) [L](#) [I](#) [P](#) [N](#) [L](#)
- p. 177 Students consider how Mexico's landforms affect the population settlements. [L](#) [L](#) [M](#) [M](#)

Writing Skills

- p. 178 Students write a poem about one of the water systems in Mexico. [L](#) [L](#) [A](#) [M](#) [N](#) [L](#)

Technology Skills

- p. 179 Students create a presentation on the biomes in northern or southern Mexico and then compare and contrast northern and southern biomes as a class. [L](#) [L](#) [S](#) [P](#) [I](#) [S](#) [P](#) [I](#) [P](#)

Online Teaching Options

Visual Skills

- INTERACTIVE BELLRINGER** Vertical Climate Zones of Mexico—Students use a diagram to discuss the relationship between increasing elevation and different climate zones. [V](#) [S](#) [P](#) [I](#) [S](#) [P](#)

Critical Thinking Skills

- INFOGRAPHIC** Climate Zones in Mexico—Students use the infographic to consider the profitability of crops based on climate, growing season, and rainfall and decide on a crop to grow considering local implications of processing, selling, and collecting a profit. [N](#) [A](#) [T](#) [L](#) [I](#) [S](#) [T](#)
- INTERACTIVE WHITEBOARD ACTIVITY** Geography of Mexico—Students will identify landforms and major water systems in Mexico on a map. [V](#) [S](#) [P](#) [I](#) [S](#)

Writing Skills

- INFOGRAPHIC** Ring of Fire/Tectonic Plates—Students discuss plate tectonics and write an argument to defend whether they believe the plate tectonics around Mexico will build up or break apart the land bridge between North and South America. [L](#) [L](#) [M](#) [M](#) [L](#) [L](#) [L](#)

Printable Digital Worksheets

Reading Skills

- WORKSHEET** Guided Reading Activity—Students use the Guided Reading Activity worksheets to review their comprehension of the content. [V](#) [L](#) [L](#) [L](#)
- WORKSHEET** Chapter Summary—Students review the main ideas of the chapter content. [V](#) [L](#) [L](#) [L](#)

Critical Thinking Skills

- WORKSHEET** Video Activity—Students answer questions related to the chapter content after they have viewed the lesson video. [V](#) [S](#) [P](#) [I](#) [S](#) [P](#)

- Students will know:**
- how Native American empires influenced Mexico's history and culture.
 - the ways in which European colonial rule shaped Mexico's political and social structures.
 - the population characteristics—the people, density and distribution, and urban areas—of Mexico today.
 - that Mexican society today reflects a blending of indigenous and European cultures and beliefs.
 - how the Mexican economy has become part of the global economy.

- Students will be able to:**
- discuss the influence of Native American empires and colonial rule on Mexico's history, culture, and political and social structures.
 - describe population characteristics of Mexico and how Mexican society is a blend of indigenous and European cultures.
 - explain Mexico's role in the global economy.

UNDERSTANDING BY DESIGN™

Print Teaching Options

Visual Skills

- p. 180** Students view a map to write about how physical geography affects life in Mexico. [Verbal/Linguistic](#)
- p. 184** Students analyze and interpret a graph about the female employees in Mexico. [Visual/Spatial](#)
- p. 185** Students create a two-column chart to track Mexico's actions to globalize its economy and the challenges it has faced. [Interpersonal, Visual/Spatial](#)
- p. 185** Students identify features on a migration map. [Visual/Spatial, Logical/Mathematical](#)

Reading Skills

- p. 180** Students write predictions about the lesson.
- p. 182** Students define the prefix mega- and the root word primate. [Verbal/Linguistic](#)
- p. 185** Students discuss the word privatize and the suffix -ize. [Verbal/Linguistic](#)

Critical Thinking Skills

- p. 180** Students compare and contrast information on indigenous peoples of Mexico. [Logical/Mathematical](#)
- p. 181** Students discuss the changing systems of Mexico's government. [Logical/Mathematical](#)
- p. 183** Students discuss changing attitudes in Mexican society and the future effects. [Verbal/Linguistic](#)
- p. 184** Students consider how Mexican cultures have met, dashed, and blended. [Logical/Mathematical](#)

Writing Skills

- p. 186** Students write essays to propose solutions to improve United States and Mexican economies. [Verbal/Linguistic](#)

Technology Skills

- p. 183** Students create multimedia presentations about life in Mexico City. [Verbal/Linguistic, Visual/Spatial](#)
- p. 184** Students create a poster interpreting one of Diego Rivera's works. [Visual/Spatial, Verbal/Linguistic](#)

Online Teaching Options

Visual Skills

- VIDEO** **Mexico City**—Students learn about how Mexico City has diversified and changed and create a chart to list traditional influences and modern influences. [Visual/Spatial](#)
- INTERACTIVE IMAGE** **Women in the Workforce**—Students discuss the issue of gender and society in Mexico. [Verbal/Linguistic](#)
- INTERACTIVE MAP** **Migration to U.S.**—Students write three questions about the map of Mexican migration to the United States. [Verbal/Linguistic](#)

Reading Skills

- INTERACTIVE BELLINGER** **Biography of Diego Rivera**—Students read a passage about Diego Rivera and draw conclusions about what life might have been like for workers and peasants in Mexico during Diego Rivera's time. [Interpersonal, Verbal/Linguistic](#)

Writing Skills

- INTERACTIVE MAP** **Civilizations of Mesoamerica**—Students write a short paragraph explaining why the feel Mexico City has become such a large city based on its physical location in Mexico. [Visual/Spatial](#)

Critical Thinking Skills

- TIME LINE** **Mexican Independence and Change**—Students discuss the various ancient civilizations and tragic conquests that lead to Mexico's independence. [Verbal/Linguistic](#)
- INTERACTIVE WHITEBOARD ACTIVITY** **Indigenous Peoples of Mexico**—Students identify characteristics about the three major indigenous groups in Mexico, the Aztecs, the Mayans, and the Nomadic and Semi-Nomadic People.

Printable Digital Worksheets

Reading Skills

- WORKSHEET** **Guided Reading Activity**—Students use the Guided Reading Activity worksheets to review their comprehension of the lesson content. [Verbal/Linguistic](#)
- WORKSHEET** **Reading Essential and Study Guide**—Students complete the study guide and answer reading progress check and vocabulary questions. [Verbal/Linguistic](#)

Critical Thinking Skills

- WORKSHEET** **Video Activity**—Students will complete this worksheet by answering the questions after they have viewed the lesson video. [Visual/Spatial](#)

- Students will know:**
- the causes and effects of deforestation in Mexico.
 - why water scarcity is a growing issue in Mexico.
 - the causes and effects of desertification in Mexico.
 - how population growth and economic development contribute to environmental issues.
 - the efforts of different groups to address environmental issues.

- Students will be able to:**
- describe the causes and effects of deforestation and desertification.
 - explain water scarcity.
 - analyze environmental issues and efforts to address them.

UNDERSTANDING BY DESIGN™

Print Teaching Options

Visual Skills

- p. 188** Students analyze the map showing environmental deterioration in Mexico. [Visual/Spatial, Logical/Mathematical](#)

Reading Skills

- p. 187** Students brainstorm the ways people extract and use natural resources and their environmental effects.
- p. 187** Students discuss the words diverse and biodiversity, the prefix bio- and the suffix -ity. [Verbal/Linguistic](#)
- p. 189** Students discuss the urban water crisis in Mexico City and why it threatens the poor the most. [Logical/Mathematical](#)

Critical Thinking Skills

- p. 187** Students create a graphic organizer to list cause-and-effect relationships in the lesson. [Verbal/Spatial](#)
- p. 190** Students make generalizations based on the text. [Logical/Mathematical](#)

Writing Skills

- p. 188** Students write a paragraph describing the importance of water to life in Mexico. [Logical/Mathematical](#)

Technology Skills

- p. 189** Students create a visual to present information about the work an environmental scientist does. [Verbal/Linguistic, Visual/Spatial](#)
- p. 190** Students work in small groups to create a presentation on an assigned program and its success in combating the problem it was designed to solve. [Verbal/Linguistic](#)

Online Teaching Options

Reading Skills

- VIDEO** **U.S. Mexico Border**—Students learn about environmental and economic changes in Mexico, choose a particular change, and write a list of potential solutions. [Verbal/Linguistic](#)

Critical Thinking Skills

- INTERACTIVE WHITEBOARD ACTIVITY** **Deforestation in Mexico**—Students will identify the causes and effects of deforestation in Mexico.

Writing Skills

- INTERACTIVE BELLINGER** **Diminishing Frontier Forests in Mexico**—Students study the map about deforestation and discuss and write a paragraph about how this map might look in the future and why. [Visual/Spatial, Verbal/Linguistic](#)
- INTERACTIVE MAP** **Environmental Deterioration in Mexico**—Students study the map and then write a paragraph predicting what they think will happen to this region over time. [Verbal/Linguistic](#)

Printable Digital Worksheets

Reading Skills

- WORKSHEET** **Guided Reading Activity**—Students use the Guided Reading Activity worksheets to review their comprehension of the content.
- WORKSHEET** **Reading Essential and Study Guide**—Students complete the study guide and answer reading progress check and vocabulary questions. [Verbal/Linguistic](#)
- WORKSHEET** **Vocabulary Activity**—Students review the chapter content and academic vocabulary words. [Verbal/Linguistic](#)
- WORKSHEET** **Chapter Summary**—Students review the main ideas of the chapter content.

Critical Thinking Skills

- WORKSHEET** **Video Activity**—Students will answer questions about the lesson video. [Logical/Mathematical](#)
- WORKSHEET** **Reteaching Activity**—Students use this activity to review and revisit chapter content and vocabulary. This worksheet can be used with struggling students who need additional help with difficult content concept.
- WORKSHEET** **Hands-On Chapter Project**—Students conduct research about the demography of Mexico. They will study Mexico's population, global population rank, age structure, birth rate, death rate, and other significant population data. Then use this information to create population pyramids. [Visual/Spatial, Logical/Mathematical](#)

INTERVENTION AND REMEDIATION STRATEGIES

16-17/36

LESSON 1 Physical Geography of Mexico

Reading and Comprehension

Have students work with a partner to create an outline of the lesson that highlights key facts related to Mexico's landforms, water systems, climate, biomes, and resources. To ensure comprehension of the topics, have partners create a slide show using presentation software that explains a topic or process, such as how plate tectonics impacted Mexico's formation. Encourage students to incorporate content vocabulary terms in their presentations. Have students present their slide shows to the class, allowing time for groups to conduct a question and answer session in which students from each group answer questions about their topic.

Text Evidence

Organize students into four groups and give each group one of the following terms written on a piece of paper: *land bridge, seismic, plate tectonics, vertical climate zone*. Have students in each group work together to act out their assigned term without using words as the student audience tries to guess the term. If students have trouble acting out their assigned term, whisper suggestions for clues. After each group has acted out its term and presented its summary, discuss as a class how the term applies to Mexico's physical geography.

LESSON 2 Human Geography of Mexico

Reading and Comprehension

Have student pairs choose two of the lesson's content vocabulary words. Tell students to work with their partner to write each word in a sentence using both words correctly. Then have pairs play a "Pictionary" style guessing game in which their partner draws clues to describe a content vocabulary term for their partner to guess. After students have finished guessing each of the terms, have partners compete against other pairs to see who can guess the most terms correctly in a certain amount of time. As a "bonus" or tiebreaker question, have each team try to give clues and guess one of the academic vocabulary terms.

Text Evidence

Have students review the lesson to identify key concepts and events. Encourage them to identify time-order relationships as they read. Remind students that looking for sequence signal words can help them organize and remember historical events. Have students jot down time-order words and phrases, such as *before, after, in the late 1700s, in 1992, and so on*. Then have partners create a time line of key historical events. Have student pairs share their time lines with the class. Then have student pairs collaborate to write a short paragraph that summarizes the events depicted on their time lines.

LESSON 3 People and Their Environment: Mexico

Reading and Comprehension

Ensure students' understanding of unfamiliar or confusing content vocabulary words, such as the meaning of the term *sustainable development*. Review with students the map in this lesson. Then discuss Mexico's deteriorating environment and the National Biodiversity Strategy and Action Plan. Guide them to paraphrase the following statement from the text, "The plan has four major objectives: to conserve and protect the biodiversity components, to value the different components of biodiversity, to promote knowledge of biodiversity, and to encourage sustainable and diversified use of biodiversity components."

Text Evidence

Tell students to choose one of the following statements from the *It Matters Because* paragraph to identify supporting evidence: *Mexico has been so focused on increasing economic development that conservation of resources has not been as high a priority. However, concerned Mexican citizens are working hard to find ways to preserve the land and all that it provides.* In addition to identifying evidence from the text, students may conduct online research to identify facts to support their chosen statement.

Online Resources

Leveled Reader

Use this online approaching-level text that corresponds directly to the text in the Student Edition. It also includes additional reading and comprehension support for English Language Learners.

Guided Reading Activities

This resource uses guiding questions to help students with comprehension.

Reteaching Activities

These worksheets provide students with an opportunity for remedial practice and review of vital chapter content.

Reading Essentials and Study Guide

This resource offers writing and reading activities for the approaching-level student.

Self-Check Quizzes

This online assessment tool provides instant feedback for students to check their progress.

Chapter Summaries

Summaries are provided for each chapter that thoroughly condenses core content into manageable chunks.

Mexico

ESSENTIAL QUESTION • How do physical systems and human systems shape a place?



CHAPTER 7

Why Geography Matters

Lesson 1 Physical Geography of Mexico

Lesson 2 Human Geography of Mexico

Lesson 3 People and Their Environment: Mexico

Geography Matters...

Places reflect their relationship between humans and their environment. Mexico today is a result of history, geography, and increased globalization. Cultures have collided in Mexico for centuries. Indigenous civilizations flourished, followed by Europeans who brought new laws, languages, and religions. Today, the faces and customs of many Mexican people reflect their mixed heritage. Economic forces have pulled Mexico into the global economy with a promise of prosperity dependent on natural resources and industrial growth.

Traditional Mexican dress is colorful and reflects the style of the region.

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Letter from the Author

Dear Geography Teacher,

The one shadow that hovers over Mexico is the danger posed by continuous wars between drug cartels that fight viciously to control pathways into the United States for illegal drugs that originate in South and Central America. Fighting drug related crime is high on the agendas of the Mexican and U.S. governments. Despite these difficulties, Mexico's economy is booming, partly fueled by the tourist industry. The Yucatan Peninsula offers a look at the old and the new. Mayan ruins dot the lowlands at sites like Chichen Itza and Tulum. A short distance away, tourists frolic in the surf at resorts in Cancun and Cozumel. Ancient temples and modern resort hotels. Quite

Richard A. Proctor

ENGAGE

Activating Prior Knowledge Explain to students that they will be exploring the ways that the physical environment and the pattern of human settlement have affected Mexico. Have students work in pairs to brainstorm what they already know about Mexico and how colonists and other migrants settling the land may have changed it over time. Have pairs share their ideas with the class.

TEACH & ASSESS

Analyzing Have students read the "Geography Matters..." introduction. **Ask: On what is Mexico basing its potential future prosperity? (Mexico is entering the global economy, but the effectiveness of this long term strategy will rely on how well Mexico can use and maintain its natural resources and keep its industries growing.)** Have students examine the photograph and read the caption. **Ask: What might have affected the development of the style of this girl's traditional way of dressing? (The style may be the result of combining indigenous cultures with those of later settlers.)**

Making Connections

Explain to students that Mexico, like the United States, was shaped by the arrival of European colonists who settled in places already populated by indigenous peoples. For the most part, British settlers remained separated from the indigenous people in the United States. However, the Spanish settlers in Mexico used the indigenous people as a source of labor to mine precious metals and grow crops; therefore the original Spanish settlements were established based on where the native people were already living.

CLOSE & REFLECT

Questioning Have students think about the systems of living that different cultures follow and what might happen when two or more cultures mix or clash in one place. Ask students to identify questions they have about how the various cultures might have affected the settlement of Mexico over time. Tell students to consider these questions as they read the chapter.



Extend the project-based learning experience globally through our partnership with ePals. ePals allows you to connect with classrooms around the world in a safe online environment for real-life lessons and projects in virtual study groups.

ENGAGE

C Critical Thinking Skills

Drawing Conclusions Note that urbanization brings both benefits and unfortunate outcomes. Have partners create a two-column chart to record potential advantages and disadvantages to rapid urbanization. They can use their prior knowledge to brainstorm a list of advantages and use the information from the text to populate the disadvantages column. In class discussion, ask students to share their ideas.

TEACH & ASSESS

V Visual Skills

Analyzing Maps Have students examine the map key. Ask: *According to the map, what color indicates the oldest boundaries of Mexico City? (red) Most recent boundaries? (purple) How has the size of Mexico City changed over time? (It has grown larger over the past 100 years.) What can you tell about the rate of growth over the past century? (The rate of growth has accelerated.)* Continue asking questions to gauge students' understanding. **Visual/Spatial**

R Reading Skills

Inferring Have students review what life may be like for new migrants to Mexico City and what resources are available to them. Ask: *How might the scarcity of potential resources affect the lives of new migrants? (Possible answers: Without proper health care, people may become ill and unable to work. Without education, children may not learn the skills they need, even if jobs are available.)* **Logical/Mathematical**

W Writing Skills

Argument Have students write a letter to the government of Mexico City suggesting solutions to the city's problems of rapid urban growth. Ask students to research innovative ideas for these problems and then convince the government that these ideas would be the best to use. **Verbal/Linguistic**

ANSWERS, p. 174

Why Geography Matters

1. The pull forces are related to industrial jobs; the push forces are related to rural land policies.
2. People do not always have access to health care and education. Lack of infrastructure leads to the development of shantytowns, which are built in environmentally sensitive areas.
3. Paragraphs should show an understanding of the environmental problems facing Mexico City and of efforts being made to solve them.

challenges of urbanization Pages: 18-19/36

Rapid urban growth brings challenges to city governments around the world as they struggle to provide housing, services, infrastructure, and jobs, as well as curb pollution. Governments have limited funds to spend on basic upkeep and services. As a result, cities like Mexico City experience challenges such as environmental problems and poverty.



Why has Mexico City grown so fast?

Today's Mexico City is the result of years of rural-to-urban migration by people looking for better economic opportunities. The first influx of these economic migrants coincided with rapid industrialization in the late nineteenth century. The pull forces of industrial jobs and the push forces of rural land policies drew people to Mexico City. The rural poor moved to the city as land was purchased around them by wealthy landowners. Similar factors continue to bring economic migrants to Mexico City seeking a better life for themselves and their families.

1. Human Systems What are the pull factors influencing migration to Mexico City? How are these different from the push factors that bring people to the city?

What is the social impact of rapid growth?

Economic migrants move to the city expecting to find jobs, information, an employment to consume. Some migrants find temporary jobs or work in the informal sector—"underground economies" that are not taxed or regulated by the government. People often do not have access to health care and education. Lack of infrastructure—housing, electrical grids, sewer facilities, and roads—to support the growing population leads to the development of shantytowns. The influx of people to Mexico City puts enormous pressure on the natural environment. Underground water supplies are being depleted, causing the city to sink. Inadequate sewer facilities lead to polluted land and water. Fuel of vehicles, landfills have been closed. Unregulated by the government, shantytowns are built in environmentally sensitive areas such as hill slopes.

2. Environment and Society What challenges has rural-to-urban migration created for the government of Mexico City?

What can be done?

Government agencies and other groups continue to establish initiatives and special projects to address these challenges. The government of Mexico and public-private partnerships are investing in sustainable and environmentally friendly housing development. Plan Verde (Green Plan) includes a range of programs to promote environmental sustainability by easing traffic congestion, reducing greenhouse gas emissions, and encouraging public transportation, cycling, and walking options. The Mexico City Climate Action Program provides funding for sustainable housing as well as renewable energy programs.

3. Human Systems Write a paragraph explaining how environmentally friendly policies could improve life in Mexico City.

Project-Based Learning

Hands-On

Population Pyramids
Students will individually create a population chart based on their research of the demographics of Mexico. After they finish their charts, students will make population pyramids using the information they gathered. Students will then work in pairs to compare and contrast their population pyramids and researched data.

Digital Hands-On

Create Online Projects
Find an additional activity online that incorporates technology for this project. Visit the EdTech Teacher Web sites for more links, tutorials, and other resources.



Visual Skills

Examining Have students examine the aerial photograph of Mexico City. Ask: *How does this photograph help you better understand settlement patterns and problems of residents in their daily lives? (Student answers may vary, but should mention aspects of the photo such as the crowded masses of houses, the presence of clusters of trees and some small waterways in the heart of the city, the large roads that help organize the city, and the taller buildings indicating the centers of business being far from the residential areas.)* **Visual/Spatial**

Technology Skills

Researching Have students work in small groups to locate recent photos and images of Mexico City. Ask them to compare and contrast the information they have seen and read in the text with what they can see in the images they find online. In particular, have them point out examples of problems such as congestion, visible pollution, or lack of adequate housing. Invite groups to present the images they have found to the class, along with a commentary about how these additional visuals might help the class better understand the challenges of urbanization facing Mexico City today. **Verbal/Linguistic**

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INTERACTIVE MAP

Mexico City Growth

Speculating Use this interactive map of Mexico City to discuss rapid population growth with students. Have students work with a partner to identify areas of the map that have recently become densely populated. Allow time for pairs to list possible reasons why these areas are more populated than others. Then guide a class discussion in which pairs share their lists and the other students evaluate the list as plausible reasons. *(Student answers may vary, but should reflect thought-out explanations for densely populated locations, such as: locations are near to public transportation, locations are further from the city center so housing is less expensive, locations are near industry.)* **Logical/Mathematical**

V Visual Skills

Examining Have students examine the aerial photograph of Mexico City. Ask: *How does this photograph help you better understand settlement patterns and problems of residents in their daily lives? (Student answers may vary, but should mention aspects of the photo such as the crowded masses of houses, the presence of clusters of trees and some small waterways in the heart of the city, the large roads that help organize the city, and the taller buildings indicating the centers of business being far from the residential areas.)* **Visual/Spatial**

T Technology Skills

Researching Have students work in small groups to locate recent photos and images of Mexico City. Ask them to compare and contrast the information they have seen and read in the text with what they can see in the images they find online. In particular, have them point out examples of problems such as congestion, visible pollution, or lack of adequate housing. Invite groups to present the images they have found to the class, along with a commentary about how these additional visuals might help the class better understand the challenges of urbanization facing Mexico City today. **Verbal/Linguistic**

Content Background Knowledge

Tenochtitlán Previous civilizations found the current site of Mexico City a good place to build their own large cities. Before Spanish conquistadors first set foot in the Americas, Aztec kings built their capital city of Tenochtitlán in the 1470s on swampy lands reclaimed from Lake Texcoco. Wanting to establish Spanish supremacy over the newly conquered Aztecs, Hernán Cortés had his city razed to the ground in 1521–1522 so that the settlement that would become present-day Mexico City could be erected in its place.

CLOSE & REFLECT

Evaluating Tell students to review the images, headings, and information in this section, and then to write a summary of the major problems facing Mexico City due to urbanization. They should describe the factors that have created the problems and the ways the government is proposing to solve them. Invite students to share their summaries, and then challenge students to evaluate the adequacy of the government's plans.

ENGAGE

Reading Skills

Activating Prior Knowledge Before students begin the lesson, have pairs work together to brainstorm what they already know about the physical geography of Mexico. Display a physical map or satellite photograph of Mexico and have students write a description of this country's physical features, organizing them by whether they are landforms or water systems. Then have students describe what they know about Mexico's climate. Discuss any relationship students already know about or can deduce between the landforms and climate of Mexico.

TEACH & ASSESS

Visual Skills

Spatial Understanding Have students read the first paragraph and use the text along with their prior knowledge to make a mental map of Mexico and its relationship to the United States and Central America. Then have them draw their mental map. Finally, display a physical map of North and Central America, and have them compare their drawings to the actual map. Have pairs present their completed graphic organizers to the class. **Visual/Spatial**

Critical Thinking Skills

Classifying After students read about the different kinds of landforms found in Mexico—including mountains, plateaus, and plains—ask volunteers to identify and write them down in a list. Then have students work in pairs to classify the information by creating a chart with columns that records information about the types of landforms and biomes in each place. Have pairs present their completed graphic organizers to the class. **Interpersonal, Naturalist**

ANSWERS, p. 176

TAKING NOTES: **landforms**—land bridge connecting North and South America, Sierra Madre Occidental and Oriental, Barranca del Cobre, Northern and Central Plateaus; **water systems**—Rio Grande, Lerma River, Lake Chapala, Gulf of Mexico; **climate, biomes, and resources**—vertical climate zones, chaparral biome in the north, variety of biomes in the south including a hot climate along coasts and heavy daily rain and high humidity on the east coast; **minerals** including silver, lead, gold, mercury, cadmium, antimony, manganese, and copper; **natural resources** of oil and natural gas.

There's More Online!

- IMAGE Land Shaped by Copper Mines in Chihuahua, Mexico
- MAPS Mexico's Physical Location on the Tectonic Plates
- INFOGRAPHIC Vertical Climate Zones of Mexico
- INTERACTIVE SELF-CHECK QUIZ
- VIDEO Physical Geography of Mexico

Reading HELPDESK

Academic Vocabulary

- feature (See You Work)
- inevitable

Content Vocabulary

- land bridge (See You Work)
- seismic
- vertical climate zone

TAKING NOTES: Key Ideas and Details

SUMMARIZING As you read the lesson, use a graphic organizer like the one below to take notes on the physical geography of Mexico.

Physical Geography of Mexico		
Landforms	Water Systems	Climate, Biomes, and Resources

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INTERACTIVE BELLRINGER

Vertical Climate Zones of Mexico

Interpreting Have students use this diagram to discuss the relationship between increasing elevation and different climate zones. Have pairs of students read the introductory text, study the colors and symbols used to designate different parts of the diagram, and answer the questions. Then ask students to predict which of the five levels would most likely be the hardest place to make a living through agriculture and why. Invite pairs to share their responses with the whole class. **Visual/Spatial, Logical/Mathematical**



North (Northern Plateau) and the smaller but heavily populated Mesa Central (Central Plateau). The dry Northern Plateau is home to several large cities. The Central Plateau is considered the breadbasket—or major grain-producing region—of Mexico. It is less arid than the Northern Plateau and has several smaller valleys. Most of the food grown in Mexico comes from this area.

The Gulf Coastal Plain is a wide stretch of land east of the Sierra Madre Oriental. These mountains extend from the Texas-Mexico border along the Gulf of Mexico to the Yucatán Peninsula. In the south, a series of mountain ranges and plateaus called the Southern Highlands reach from just south of Mexico City to the southwest edge of Mexico's border with Guatemala.

The variety of landforms in Mexico—from large plateaus and valleys to long mountain ranges and highlands—has made it possible to support large communities of people. There are ample grazing and farmlands on the North and Central Plateaus, in the Southern Highlands, and along the coastlines. The population density in Mexico is greater near parts that have the most agriculture, especially on the Central Plateau and in the Southern Highlands.

READING PROGRESS CHECK
Interpreting How has the geography of Mexico affected the way people use the land?

What connects the large tectonic plates, enabling migration of plants and animals to new areas?

Seismic relating to or caused by an earthquake

Feature to have as a characteristic or as a prominent attribute

LESSON 1 Physical Geography of Mexico

ESSENTIAL QUESTION How do physical systems and human systems shape a place?

IT MATTERS BECAUSE

Mexico has rich farmland, abundant access to the ocean, and freshwater resources. With diverse climates and biomes it supports a variety of food crops. The country also has substantial mineral resources and has developed strong manufacturing and service sectors.

Landforms

ESSENTIAL QUESTION Why is the Mexican Plateau considered the heartland of Mexico?

Mexico is the southernmost country in North America. It shares its entire northern border with the United States. Mexico, along with Central America, joins the continents of North America and South America. This physical feature is called a **land bridge** because it connects two geographic landforms.

The western side of Mexico is part of the Ring of Fire. The Ring of Fire is the area where the Pacific tectonic plate collides with other tectonic plates, creating areas of **seismic** activity with earthquakes. This activity helps shape the landforms of Mexico. Seismic activity opens parts of the Earth's crust and triggers the formation of volcanoes.

The mountains that stretch along the northwestern edge of Mexico are called the Sierra Madre Occidental. These mountains have been deeply cut by westward-flowing rivers and streams, which have formed deep gorges. The largest is Barranca del Cobre (Copper Canyon), a beautiful natural wonder in the state of Chihuahua, Mexico.

The Sierra Madre Oriental is considered the southern extension of the Rocky Mountains of Canada and the United States. The average mountain height is between 8,000 and 9,000 feet (2,438 and 2,743 m). A few exceptions include mountains that reach heights of 12,000 feet (3,657 m).

Between these two mountain ranges is the inland Mexican Plateau. Moderate, consistent temperatures make this area an attractive place to live. It is the largest and most densely populated region of



Mexico's location near the edges of tectonic plates makes it a hot spot for volcanoes and earthquakes.

CRITICAL THINKING

- Classifying** On which tectonic plates is Mexico located?
- Drawing Conclusions** Why do you think this area of tectonic activity is called the Ring of Fire?

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Critical Thinking Skills

Identifying Cause and Effect Have students review the information about Mexico's landforms and population and consider how landforms affect the population. **Ask:** What is the relationship between landforms and the distribution of population? (More people live in the parts that sustain the most agriculture and have consistent temperatures.) **How would you explain this relationship?** (People live in places where their needs can be met, so more people will tend to live in places where it is easier to grow the crops they need.) **Logical/Mathematical**

Visual Skills

Analyzing Visuals Have students study the diagram and consider its parts and what information it is conveying. **Ask:** What do the orange lines indicate? (the boundaries of each of the tectonic plates) What do the red arrows indicate? (the direction in which each plate is moving) **Using Information from the Diagram, explain the type of seismic activity experienced by Mexico?** (The diagram shows the red arrow of the Caribbean plate and the red arrow of the Cocos plate pointing toward one another. The force of these two plates meeting must cause the earthquakes and volcanoes.) **Visual/Spatial**

Making Connections

Ring of Fire Formed by the movement of different tectonic plates, the Ring of Fire is a belt of volcanic and seismic activity that stretches all around the Pacific Ocean. Its effects are felt not only by Mexico, where the subduction of the Cocos plate under the Caribbean plate causes earthquakes, but by other countries that border the Ring of Fire as well. In North America, the movement of two plates scraping against each other as one moves north and the other slides south causes earthquakes to shake the coast of California. Further north, the movement of one plate sinking under another causes magma to bubble to the surface and form volcanoes such as Mount St. Helens in Washington and the Aleutian Islands of Alaska.

ANSWERS, p. 177

READING PROGRESS CHECK The variety of landforms means large communities of people can be supported. Ample grazing and farmlands exist on the North and Central Plateaus, in the Southern Highlands, and along the coastlines.

CRITICAL THINKING

- Mexico is located on the Pacific, Cocos, and North American plates.
- Volcanic eruptions and other tectonic activity are common here.

INFOGRAPHIC

Ring of Fire/Tectonic Plates

Defending This diagram shows plate tectonics around Mexico and Central America. Review with students that some forces of plate tectonics affect Earth's surface through the movement of magma within Earth; other forces involve movements that can fold, lift, bend, or break Earth's crust; and that Pangaea, a gigantic supercontinent, is believed by many scientists to have once connected nearly all of Earth's landmasses. Have students work with a partner to write an argument to defend whether they believe the plate tectonics around Mexico will build up or break apart the land bridge between North and South America. Allow students to conduct library or online research to defend their arguments. **Logical/Mathematical, Verbal/Linguistic**



Reading Skills

Determining Word Meanings Write these terms on the board: *Tierra Helada*, *Tierra Fria*, *Tierra Templada*, and *Tierra Caliente*. Explain that these are the names of Mexico's vertical climate zones. If possible, pair Spanish speakers with non-Spanish speakers. Then have pairs work together to translate the name of each vertical climate zone: freezing land, cold land, temperate land, and warm or hot land. Invite pairs to share their definitions and then discuss as a class why each vertical climate zone might have this name. **Verbal/Linguistic**

Writing Skills

Narrative Have students discuss the importance of water to life in Mexico and identify some ways its presence or absence affects the way that people have settled and used the land. Then have students write a poem about one of the water systems in Mexico. Encourage students to think about the sights and sounds of water and how these sights and sounds and the vital importance of water could be expressed in poetry. **Auditory/Musical, Naturalist**

Visual Skills

Using Diagrams Have students interpret the diagram in a class discussion. **Ask:** What are the four vertical climate zones of Mexico called? (*Tierra Helada*, *Tierra Fria*, *Tierra Templada*, and *Tierra Caliente*) Where are the majority of the crops shown grown? (In the bottom three climate zones) What information does the diagram provide about each climate zone? (Its altitude and the range of temperatures found there) How might you describe the relationship between climate zone and altitude? (Temperatures drop as you move to higher climate zones.) Have students answer the Critical Thinking questions on their own. **Visual/Spatial**

Vertical climate zone a climate zone that occurs as elevation increases, with its own natural vegetation and crops

Inevitable incapable of being avoided or evaded

Differences in elevation create distinct climate zones in Mexico and other high-altitude areas in Latin America.

CRITICAL THINKING

- Analyzing Visuals** Which climate zones are found above 6,000 feet (1,829 m)?
- Speculating** How might increasing elevation affect the type of resources found in each vertical climate zone?

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INFOGRAPHIC

Climate Zones in Mexico

Making Connections Use this infographic on the vertical climate zones of Mexico to help students understand how environments affect human activities. Have students work in small groups to discuss and compare the climate zones. Ask each group which of the products shown in the graph they consume. Then have each group consider which crops, if grown for trade, would be the most profitable based on the climate, growing season, and rainfall in Mexico. Have each group decide on one crop to grow and consider the local implications of processing, selling, and collecting a profit for this crop. Have groups share their reasoning in a class discussion. **Naturalist**

GUIDING QUESTION Why does Mexico have few major rivers and natural lakes?

Northern Mexico is generally characterized by a dry climate. The permanent waterways are rare. The high mountain range and other natural features that do not collect the volume of water rains are more common in tropical regions. The few rivers and natural lakes that exist are found in the central part of the country and are generally small. One important exception is the Rio Grande. Known as the Rio Bravo del Norte in Mexico, it forms part of the border between Mexico and the United States.

The Lerma River is one of Mexico's most important rivers. It begins in the Toluca Basin, on the Central Plateau west of Mexico City. The Lerma River feeds into Lake Chapala, the largest natural lake in Mexico.

The Gulf of Mexico is the large body of water that forms Mexico's east coast. It supports diverse sea life including an ancient sea creature known as the manatee. The Gulf of Mexico is famous for shrimp and supplies the fishing industry in both the United States and Mexico. The waters in the Gulf of Mexico are relatively sheltered from ocean currents, so the beaches are calm and the waters are warm.

On the western side of Mexico, the Gulf of California divides the Baja Peninsula from the northern coast of Mexico. This body of water supports a remarkable diversity of aquatic animals. These include several types of whales, the giant Pacific manatee ray, endangered leatherback sea turtles, and great white sharks.

READING PROGRESS CHECK

Describing What is the importance of the Rio Bravo del Norte to Mexico?

Climate, Biomes, and Resources

GUIDING QUESTION How does climate affect human activities in Mexico?

The climate of a particular region **inevitably** affects the way of life that people have in each place. For example, people who graze cattle on the Northern Plateau anxiously await rain each year. The farmers in the valleys of the Central Plateau



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water for their crops. The three factors that influence Mexico's climates are the regional high-pressure systems, the northeast trade winds, and the high-pressure systems that keep the north and central parts of Mexico dry and cause occasional droughts. The northeast trade winds are responsible for the pattern of tropical storms. Vertical climate zones create the temperate or mild climates found throughout the southern part of Mexico. The elevation of the highlands keeps them at a comfortable temperature that is also helpful for growing certain crops.

Northern Mexico is defined as a chaparral biome. It has mild, rainy winters and hot, dry summers. The plant life consists of cacti, shrubs, and shrub oaks. High winds and low-growing plants make the soil in this region good for grasslands. The soil is also thin and rocky, however, so it is not good for crops.

Southern Mexico has a variety of biomes. In the lower altitudes along the coasts, the climate is hot. On the east coast, daily rainfall and high humidity occur. This biome supports very diverse plant and animal life and is essentially a rain forest.

Minerals are an important part of Mexico's economy, especially silver. Mexico is the world's leading producer of silver. In the area called the "Silver Belt" on the Mexican Plateau, both industrial and precious minerals are mined. Zinc, bauxite (the ore of aluminum), lead, gold, mercury, cadmium, and such trace minerals as antimony, manganese, and copper are also important. Timber, fish, and agricultural products are also a significant part of Mexico's economy.

Mexico is a leading petroleum-producing country. Petroleum exports account for a large share of foreign-exchange earnings. Mexico ranks thirteenth in the world for crude oil exports. About three-fourths of Mexico's electricity is generated by thermal power plants that are fired mainly by oil and natural gas. Another one-tenth of Mexico's electric power is generated by nuclear power and renewable resources of wind, solar energy, and biomass (plant materials and animal waste used as a source of fuel).

READING PROGRESS CHECK

Assessing How do vertical climate zones affect the economic activity of the Southern Highlands?

LESSON 1 REVIEW

Reviewing Vocabulary

1. Describing Write a paragraph that discusses the geography of vertical climate zones. **MS-18.4**

Using Your Notes

2. Describing Use your graphic organizer from the lesson to describe three of Mexico's water systems.

Answering the Guiding Questions

3. Drawing Conclusions Why is the Mexican Plateau considered the heartland of Mexico?



Copper mining takes place in the Mexican copper belt in the west part of the country.

CRITICAL THINKING

- Analyzing Visuals** Describe the negative impacts of strip mining as depicted in this photo.
- Comparing** Where is Mexico's copper belt located in comparison to the "Silver Belt"?

4. Interpreting Why does Mexico have few major rivers and natural lakes?

5. Making Connections How does climate affect human activities in Mexico?

Writing Activity

6. Informative/Explanatory Write a paragraph describing Mexico's location along the Ring of Fire and how that causes natural hazards. **MS-18.4**

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Reading Skills

Understanding Relationships Review how different natural factors can influence the climate of an area. Ask students to identify the three factors that influence Mexico's climates—regional high-pressure systems, northeast trade winds, and the vertical climate zones. Direct students to write brief statements explaining the relationship between each factor and the type of effect it can produce. **Verbal/Linguistic, Naturalist**

Content Background Knowledge

Mexican Oil Production Mexico possesses several areas of oil reserves. Most Mexican oil—about three-fourths—is collected from reserves located offshore in the Campeche Basin in the Gulf of Mexico. Other basins of oil are located in the northern part of the country. Unfortunately, some studies indicate that Mexico has reached peak oil, or the point in time when the production of oil will continue to decline, rather than rise or stay steady.

Technology Skills

Comparing and Contrasting Divide students into two groups and assign one group northern Mexico and one group southern Mexico. Have each group use the Internet or library resources to research the biomes for each area and the crops and natural resources found in each biome. Groups should create visuals that illustrate the different biomes, describing the climate, fauna, and flora. Have groups present their visuals to the class. Then use the presentations to hold a class discussion comparing and contrasting the different biomes found in northern and southern Mexico. **Visual/Spatial, Interpersonal**

CLOSE & REFLECT

Summarizing Tell students to review how the physical environment of Mexico has affected where people have established settlements and how they make a living. Have students pick one area of Mexico to explain why people do or do not live there using specific information from the lesson.

ANSWERS, p. 179

READING PROGRESS CHECK The climate is mild, so agriculture is abundant and supports the economy.

CRITICAL THINKING

- Some negative impacts of strip mining are deforestation, soil erosion, and air pollution.
- The "Silver Belt" is on the Mexican Plateau in the center of the country while the copper belt is located in the western part of the country.

LESSON 1 REVIEW ANSWERS

Reviewing Vocabulary

1. Paragraphs should show an understanding of vertical climate zones and their relation to Mexico's geography.

Using Your Notes

2. Answers should include three of the following: The Lerma River is one of Mexico's most important rivers and feeds into Lake Chapala, Mexico's largest natural lake. The Balsas River is a steep, swift river that is the major source of hydroelectric power. The Gulf of Mexico forms Mexico's east coast and supplies the fishing industry. The Rio Grande forms part of the border between Mexico and the United States and is the largest river outside of the central regions of the country.

Answering the Guiding Questions

3. The Mexican Plateau is the largest and most densely populated region of Mexico, and most of the food grown in Mexico comes from its Central Plateau.

4. In general, Northern Mexico is characterized by a dry climate, which makes permanent waterways rare.

5. The farmers in the valleys of the Central Plateau depend on the climate to help them get enough water for their crops.

Writing Activity

6. Paragraphs should show an understanding of the Ring of Fire, plate tectonics, and how seismic activity shapes landforms, including volcanoes.

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ENGAGE

Reading Skills

Previewing Have students quickly flip through the lesson to preview the images and headings as they consider what they already know about Mexican history and how the interaction of various cultures and groups of people can affect the human geography of a place. Then have students write down three predictions for what they will read and learn about in this lesson.

TEACH & ASSESS

Visual Skills

Identifying Perspectives Have students refer to a physical map of Mexico as they read about the diverse cultures of Mexico. Have them find the areas on the map referred to in the text and identify the landforms that would impact life in that region. Have students write a short paragraph from the perspective of a person in each group about how the physical geography of the area must have affected his or her life.

Verbal/Linguistic

Critical Thinking Skills

Comparing and Contrasting Have students work in pairs to make a three-circle Venn diagram to help them compare and contrast information about the indigenous peoples found in the northern and southern parts of Mexico. Students should consider issues such as where the people lived, how their environment affected the sort of civilization they created, and what sort of presence they have in modern-day Mexico. Invite pairs to share their completed diagrams with the class. Hold a discussion during which students articulate how these Indigenous cultures were alike and different in the ways they influenced Mexico's history and culture.

Logical/Mathematical

There's More Online!

- GRAPH Identify Labor in Mexico
- IMAGE Analyze How the U.S.-Mexico Border
- IMAGE Show How Mexican Labor Force
- MAP Mexico Migration to the United States
- INTERACTIVE SELF-CHECK QUIZ
- TIME LINE Mexico: Independence and Change
- VIDEO Human Geography of Mexico

Reading HELPPDESK

Academic Vocabulary

- culture
- diverse

Content Vocabulary

- mestizo
- conquistador
- cash crop
- syncretism
- magadty
- primate city
- extended family
- gross domestic product
- maquiladora
- free trade zone

READING NOTES: Key Ideas and Details

PARAPHRASING Use a graphic organizer like the one below to describe the human geography of Mexico.

Human Geography of Mexico	
History and Government	Population Patterns

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LESSON 2 Human Geography of Mexico

ESSENTIAL QUESTION • How do physical systems and human systems shape a place?

IT MATTERS BECAUSE Mexico's human geography reflects influences from the Maya and Aztec civilizations, the introduction of Spanish culture during the colonial era, and cultural and social elements shared from recent interaction with the United States and other countries.

History and Government

GUIDING QUESTION What influenced Mexico's political and social structures?

Variations in the physical geography of Mexico led to the development of diverse cultures, languages, and civilizations among the indigenous peoples of Mexico. These differing peoples developed cultures to suit the environments in which they lived. These cultures can be seen in the regional distinctions of Mexico today.

The northern half of Mexico, on the inland plateau and in the mountains, originally had a small population of mostly independent groups of nomadic people. Agriculture was used, but it was not highly developed. Some of these seminomadic groups still live in their traditional homelands, almost untouched by outside influences. The Tarahumara people in the Sierra Madre Occidental are one example of an indigenous group who still live in northern Mexico.

The southern half of Mexico was geographically more diverse. It could support large-scale agriculture and produce the variety and abundance of foods necessary to maintain empires and cities. Centered in the Yucatán Peninsula, the Maya civilization was one of the earliest and largest civilizations in Mexico. The Maya built huge stone cities, which were abandoned a few hundred years before the arrival of the first Spanish explorers. The Maya ruled a vast territory and engaged in long-distance trade with Central American cultures, including Teotihuacan and the Zapotec. Their descendants still live in and around the areas of their former empire. Many of these people maintain their culture, speak their ancestral languages, and practice the same cultural traditions.

The Aztec Empire arose in central Mexico. The Aztec ruled from their capital, Tenochtitlán (say-nochee-tse-LEHN), the site of present-day Mexico City. They had conquered other peoples in the area when the

Indigenous heritage, now densely populate the region, there are groups that trace their ancestry to the Aztec.

After the conquest of the Aztec by Spanish conquistador Hernán Cortés and his men, the Spanish took the wealth of Mexican gold and silver resources. They also used a wide variety of food available to the local people, quickly taking corn, tomatoes, potatoes, chocolate, and other native crops on the return trips to Spain. Large tracts of land in Mexico were given to the Spanish settlers of Mexico. These landowners began growing cash crops such as cacao (chocolate) and maize (corn) in large quantities, which they exported to Spain. This further enriched the Spanish. Mexico remained a part of the Spanish Empire for nearly three centuries. It was governed by Spain under a highly structured political system ruled by officials called viceroys who were appointed by the Spanish monarch.

In the late 1700s, throughout Mexico and the rest of Latin America, people started to protest European rule. In 1821 Mexico became the first Spanish territory to win its independence. Mexico was free from Spain, but the political system was ruled by a small group of wealthy landowners, army officers, and Catholic clergy who remained in power. Power struggles, public dissatisfaction, and civic revolts made the new republic fragile and chaotic. During this time a new type of leader emerged, the caudillo (kaw-DEE-yoh), or military dictator. For brief periods in the 1800s, the government showed promise. However, the caudillos found ways to return to power.

The long and bloody Mexican Revolution overthrew the caudillos and established a new constitution in 1917. This brought reforms and established the current Mexican government as a federal republic. Power was divided into three branches of government—legislative, executive, and judicial—and a president could only be elected for one six-year term. However, the rule of law did not last for long. In 1929 one political party, the Partido Revolucionario Institucional (PRI), was elected and established a corrupt monopoly on the political system of Mexico. The PRI went on to control the political establishment for nearly 70 years. Not until 2000 was the opposition party, Partido Acción Nacional (PAN), able to win the presidency. In 2012, however, the PRI was reelected.

Over the past few decades, drug cartels have come to control different regions of Mexico. New cartels have been forming or breaking away from older and larger cartels. These new cartels compete with old cartels for power and control of drug-producing territories. The result is internal warfare in Mexico. The cartels have increasingly incited street gun battles, massacres in the mountains, and other acts of violence and terror.

Struggles for additional reforms in the government continue. Indigenous communities, small farmers, and groups of underpaid laborers are continuing to pressure the government for greater inclusion in the political system. Corruption remains a common reality in the government. A small group of very wealthy landowners still controls most of Mexico's wealth.

READING PROGRESS CHECK Exploring the Issues Why do drug cartels have such a powerful influence in Mexico?

Population Patterns

GUIDING QUESTION What factors have shaped Mexico's population patterns?

For unknown reasons, the Maya had abandoned their cities in the Yucatán and southern Mexico by the time the Spanish conquistadors arrived. They were mainly living as subsistence farmers in small communities, where many still live today.

Some cities, with modern cities or a task, religion, or social group

diverse (differing from one another)

metizo refers to people of both Indigenous and European descent

conquistador Spanish for "conqueror"; Spanish soldier who participated in conquest of Indigenous peoples of Latin America

cash crop Farm product grown to be sold or traded rather than used by the farm family

caudillo military dictator

corrupt monopoly a situation in which one person or group has exclusive control over an industry or activity

substance something that has a physical form

Critical Thinking Skills

Evaluating Have students recall the reasons why conquistadors first journeyed from Spain to the Americas. Ask: *How would you evaluate the way Spanish rulers felt about the discoveries Cortés made in Mexico?* (Possible answer: Mexico had valuable resources such as precious minerals like gold and silver, native crops such as corn, tomatoes, and chocolate, and large areas of land that could be farmed to produce even more crops that could be exported for profit. Therefore, the Spanish rulers must have valued his discoveries, which is shown by the fact that they settled Mexico and made it part of the Spanish Empire.) Verbal/Linguistic

Critical Thinking Skills

Making Generalizations Discuss the changing systems of government that have ruled the Americas. Ask: *Who governed Mexico while it was part of the Spanish Empire? (Viceroys appointed by the Spanish monarch) Who ruled Mexico after it won its independence? (a small group of wealthy landowners, army officers, and Catholic clergy) Who contested with the new republic for power? (caudillos, or military dictators) Who controlled the current form of Mexican government for most of the twentieth century? (one political party—the Partido Revolucionario Institucional or PRI—who established a corrupt monopoly) What generalization can you make about the pattern of government in Mexico over the centuries? (Power after time, a select group of rich and powerful people has risen to take over the rule of Mexico and dictated what will happen to the poorer majority.)* Logical/Mathematical

Content Background Knowledge

Mestizos Mexicans today hold some ambivalence about using the label *mestizo*. The term began as an insult, meant to draw distinctions between Spanish settlers with a single heritage and people from new families created by the mingling of several cultures. The Spanish even set up a caste system that organized people based on the "purity" of their ethnic background. Over time the term *mestizo* has been redefined by some to stand for a proud cultural identity. Categorizing themselves as *mestizo* allowed groups that had been treated as second-class citizens to draw strength and a sense of unity from their indigenous roots. At the same time, other groups would rather avoid using the label to escape its past offensive connotations.

ANSWERS, p. 181

READING PROGRESS CHECK Drug cartels control different regions of Mexico. New cartels compete with old cartels for power, resulting in street gun battles, massacres in the mountains, and other acts of violence or abuse.

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INTERACTIVE BELLINGER

Biography of Diego Rivera

Drawing Conclusions This biographical passage can be used to introduce students to the life of Diego Rivera and his use of the European art form of the mural to communicate his political beliefs. Have students work with a partner to read the passage and answer the questions. Then ask them to use what they already know about the Russian revolution and the purpose of unions to draw some conclusions about what life might have been like for workers and peasants in Mexico at this time. As a class, have pairs present their conclusions.

Interpersonal, Verbal/Linguistic



INTERACTIVE MAP

Civilizations of Mesoamerica

Interpreting Use this interactive map of the early civilizations in Mexico and Mesoamerica to illustrate to students where various populations were first established. Have students identify possible reasons for the locations, such as proximity to a major waterway, fertile soil, etc. Then have a volunteer point to the location of Mexico City on the map. Explain that Mexico City is one of the largest cities in the world. Have students write a short paragraph explaining why they feel Mexico City has become such a large city based on its physical location in Mexico. Visual/Spatial



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Human Geography of Mexico

Making Connections

Because the Spanish settled large areas of land in the western United States, people today can visit presidios and missions not just in Mexico, but in U.S. states such as California, Texas, New Mexico, and Arizona. These settlements were meant to firmly establish Spain's claim to these lands and protect them from the encroachments of other colonizing countries such as France and Britain.

Reading Skills

Using Word Parts Ask students to reread the last paragraph on the page. Remind students that if they are unsure of the meaning of a word, they can break it apart and consider the meaning of any prefixes or root words. Have students define the prefix *mega-*, using resources to look it up if necessary.

Ask: What can breaking the word *megacity* apart help you understand about its meaning? (Possible answer: The prefix *mega-* means "big," so a *megacity* is a settlement that is very large, possibly a city made up of many cities put together.) What root word can you identify in the word *primate*? (Prime, meaning "first.") What can this root word help you understand about the meaning of the term *primate city*? (Possible answer: A *primate city* is the "first" city in a country because it has the most economic activity, is the biggest center of culture, and has the largest population.) **1** Verbal/Linguistic

Visual Skills

Analyzing Visuals Review the parts of the time line with students. Then have pairs work together to read each entry and consider what type of information it provides them about Mexico. Have pairs finish by writing summaries that describe in their own words what the time line is explaining about Mexico. (Possible answer: The events on the time line charts changes in government and leadership over time. The time line illustrates the volatility of systems of government in Mexico and how the leadership has seceded back and forth between corrupt dictators and a spirit of reform.) **1** Visual/Spatial, Verbal/Linguistic

ANSWERS, p. 182

CRITICAL THINKING

- Benito Juárez brought great changes to Mexico during La Reforma.
- Vicente Fox opposed PRI. It regained power in 2012.

syncretism a blending of beliefs and practices from different religions into one faith

megacity a great city that is made up of several large and small cities

primate city a city that dominates a country's economy, culture, and government and in which population is concentrated; usually the capital

conquering their neighbors, and establishing a powerful central urban region in the Valley of Mexico.

The indigenous peoples of Mexico were a mixture of different groups, having multiple languages and belief systems. Over time, these indigenous peoples and the Spanish resulted in the *mestizo* people. The Spanish arrival brought other changes to Mexico. It resulted in war and disease outbreaks. The Spanish also established the Catholic Church in Mexico. A unique melting of traditional indigenous beliefs and the newly introduced Catholic culture occurred in a process called **syncretism**.

The Spanish established a solid footing in Mexico by using Catholic missions as religious outposts to help spread Christian ideas. They centralized power around presidios, or military outposts, to protect Spanish towns and missions. Communities expanded near the missions, and Spanish estate farming and ranching were introduced. Some Spanish settlements grew into large cities, growing rich local natural resources. For example, *Oaxaca de Juárez* grew rich on the cochineal (Kaktusochin) insect used to make a permanent red dye.

Spanish landowners took advantage of Mexico's large and impoverished indigenous communities. Workers on large landowners' estates, known as *haciendas*, grew cash crops but were paid very little for the labor they did. It was, and in many places still is, very difficult for poor workers to earn enough to become independent of their landlord. After independence from Spain, members of poor rural communities sought independence from the landowners.

Rural-to-urban migration has greatly altered the population distribution. Today, more than 70 percent of Mexican citizens live in urban areas. Mexico City is a **megacity** that has absorbed surrounding towns and smaller cities into the urban sprawl of the dominant city. It has received millions of migrants as well. The poor seek work in urban areas, migrating to regional capitals or to Mexico City. Mexico City is important because it is the **primate city**. It is more than just

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TIME LINE

MEXICAN Independence and Change

The story of Mexico's history is a fascinating one. Starting with ancient civilizations and tragic conquests, it is followed by independence and revolution, resulting in the Mexico of today.

CRITICAL THINKING

- Analyzing** Why do you think Benito Juárez is considered a hero to Mexicans?
- Sequencing** What political party did Juárez first oppose and when did it regain power?

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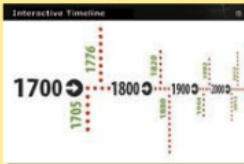


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TIME LINE

Mexican Independence and Change

Hypothesizing Use the time line on Mexico's history to help students consider the various ancient civilizations and tragic conquests that ultimately lead to the country's independence. Explain that the Spanish set up numerous Catholic missions in Mexico to establish a strong presence in Mexico. Point to the year 1810 on the time line and read the text about Father Miguel Hidalgo. Ask students the following questions: **What does it mean that he is titled a "father"?** (He is a Catholic priest.) **Do you think he is most likely a Spaniard or a Native Mexican?** (He was born in Pénjamo, Guamútuva, so he is a Native Mexican.) **How might this revolution have been different if the opposite group led it?** (Student answers may vary, but they should reflect logical reasoning.) **1** Verbal/Linguistic



Mexico. Mexico City has the best schools, hospitals, and housing in the country. It also has serious overcrowding, the most impoverished neighborhoods, and high levels of air pollution and water pollution.

REF: Home Practice Plus CHECK

Analyzing How did Spanish landowners take advantage of the indigenous people?

Society and Culture Today

essential question How does Mexican society and culture reflect the country's colonial past?

Colonial rule lasted for nearly 300 years in Mexico and gave the country's different cultures an important point of unifying identity. The majority of Mexicans identify themselves as Catholic. The rituals practiced in churches, however, are a blend of the diverse internal influences that drive Mexican culture.

Family and the Status of Women

Mexican culture highly values family. Today, many upper-class families are moving into more nuclear living arrangements, with only two generations in one house. The majority of Mexican homes, however, still hold three or four generations. The **extended family**, including cousins and grandparents, acts as a social support network with older generations raising younger ones. This is especially common in rural areas and in poorer communities.

Spanish culture established the tradition of *machismo*, or male dominance, in Mexico. As in other Latin American countries, women in Mexico have traditionally been limited to culture-specific roles in society. Their first obligation is to the family. However, women have made huge strides toward equality in the last few decades. More women are entering the workforce and are involved in traditionally male professions, as well as in the political arena.

extended family household made up of several generations of family members



VIDEO

Mexico City

Creating Charts Use this video about Mexico City to show how the city has diversified and changed over time. Explain that over the years Mexico City has gone from an Aztec society to a thriving metropolis that blends indigenous, European, and modern architectures and cultures into one city. Working with a partner, have students create a two-column chart. Have them list **traditional influences** in one column and **modern influences** in the other. Have pairs share their charts in a class discussion. **1** Visual/Spatial



Human Geography of Mexico

Technology Skills

Acquiring Information Have small groups of students use online resources to collect more in-depth information about life in the megacity of Mexico City. Assign each group a specific area to research, such as cultural institutions, systems of housing, industries and businesses, school systems, and transportation. Once groups have completed their research, have them create multimedia presentations using photographs, video clips, and charts or graphs to organize their data. Invite groups to present their findings to the class. Finish with a class discussion about the advantages and drawbacks of living in this city.

1 Verbal/Linguistic, Visual/Spatial

Critical Thinking Skills

Exploring Issues Have students think about how attitudes in Mexican society are changing and what positive and negative effects these shifting beliefs might have on society in the future. **Ask:** How is family life changing over time? (Possible answer: Although most Mexican homes, particularly in poor or rural areas, still house extended families, many upper-class families are using their prosperity to live in homes with only one or two generations present.) **How might this change affect how people live?** (Possible answer: Previously, Mexican families could rely on the support network of family to share work such as child-rearing or looking after older family members who could no longer take care of themselves. If more and more people live apart from each other, families will have to find other ways to compensate for the lack of this support network, such as paying for outside help to provide child or elder care.) **What limited the kinds of work that women could do in the past?** (Possible answer: A tradition of male dominance inherited from the Spanish settlers trapped women in certain roles.) **What problems might women face as they work to gain equality?** (Possible answer: They will have to overcome and replace the ingrained tradition of *machismo* with one that accepts women as equals.) **1** Verbal/Linguistic, Logical/Mathematical

ANSWERS, p. 183

READING PROGRESS CHECK Workers on Spanish landowners' estates were paid very little for the labor they provided, making it difficult for poor workers to earn enough to become independent.

V Visual Skills

Using Graphs Provide time for students to analyze and interpret the graph. Then in a class discussion, ask: **What are the three labor sectors represented on the graph? (Industry, agriculture, and services) What do the colored slices on the graph tell you? (The percentage of all working women employed in each area) Which sector employs the smallest percentage of women? (Agriculture) Have students answer the questions on their own.** **Visual/Spatial**

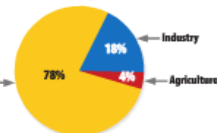
C Critical Thinking Skills

Analyzing Have students consider what they have read so far about the composition of the population of Mexico and how different cultures have met, clashed, and blended over time. Ask: **How would you summarize the point this paragraph is making about the relationship between Mexican culture and traditional folk culture? (Although formed by a collection of different influences, Mexican culture is trying to establish a kind of unity by treating parts of folk culture as universally Mexican.) What are some examples of pieces of folk culture that are now recognized as "Mexican"? (Maya pyramids, Aztec temples, the mural form) Why might the Mexican people find it useful to unite their culture in this way? (Sharing a common cultural identity that joins and preserves, rather than ignores, past accomplishments might unite the people politically and socially.)** **Logical/Mathematical**

T Technology Skills

Identifying Perspectives Have students explore the work of Diego Rivera in greater depth. Organize students into pairs. Have each pair conduct online research to locate an example of Rivera's wall paintings and frescos. Pairs should present to the class a poster displaying their chosen artwork, along with their interpretation of Rivera's perspective on his subject and an explanation of how they feel this piece of art uses images to reflect Mexico's cultural heritage. **Visual/Spatial, Verbal/Linguistic**

PERCENTAGE OF FEMALE EMPLOYEES PER SECTOR, MEXICO, 2010



Women in Mexico have been entering the labor force in increasing numbers in recent years.



Pages: 28-29/36

- 4. CRITICAL THINKING**
- Analyzing** What economic sector employs the most women in Mexico?
 - Analyzing Visuals** Which sector is the photo depicting?

The Arts

Mexico's arts have been greatly influenced by its indigenous cultures and Spanish heritage. Since the 1930s, Mexican culture has been sending a unified image through the promotion of traditional folk culture. Art forms that were once region-specific or limited to a particular cultural group are now universally recognized as Mexican. Early indigenous architecture includes Maya pyramids and Aztec temples and palaces. Many of these buildings were decorated with murals (wall paintings) and mosaics (wall pictures made with stones or tiles). Murals were also popular in the European tradition, and the Spanish encouraged this art form.

Murals continue to be an important art form in Mexico. The most famous Mexican muralist was Diego Rivera. He became known for his elaborate and often culturally and politically themed wall paintings and frescos (paintings done in wet plaster). His art is displayed in museums and government and civic buildings in Mexico City and in the United States. In the central arch detail of his fresco *From Conquest to 1930*, Rivera used images of peasants and workers to show foreign influence and Mexico's struggle for independence.

READING PROGRESS CHECK

Depicting How does the art of Diego Rivera reflect Mexico's cultural heritage?

Economic Activities

GUIDING QUESTION How has Mexico's place in the global economy changed over time?

In the 1500s Mexico became the center of the Spanish Empire in the Americas. It was a rich colony because of its many natural resources. Because it was the first Spanish colony to win independence, Mexico became a cultural leader and example for other colonies ruled by Spain and Portugal. Mexico is still trying to create an economy that benefits all Mexicans, not just the wealthy upper class. In fact, Mexico is still struggling to be a completely free and equal republic. Colonialism still influences Mexico's economy.

Mexico has a higher standard of living than many countries in Latin America. Mexico's **gross domestic product (GDP)** is the twelfth highest globally. The per capita GDP, or average income, is above \$15,000 per year. However, this does not account for the large gap between the rich and the poor. One reason for Mexico's economic prosperity is its high level of economic diversity.

Mexico's many natural resources are controlled by the rich and by the government. The wealthy upper class controls the land that provides access to resources and enterprise holdings. Mexico has globalized its economy and invested in high-tech industries. Industries in Mexico face competition from countries in other regions, especially Asia and Central America. Wages, transportation costs, government supports, and political considerations are all important in deciding the best location for a manufacturing or production facility.

Mexico's diverse landscape has always presented a challenge to building a national transportation system. This is especially true for east-to-west travel in the northern region. Mexico City remains the major hub for all rail travel. Buses and trucks also carry passengers and freight in Mexico via the highway systems, including trucks that carry manufactured goods to the United States. In the 1990s the Mexican government began to privatize the airline industry. Today, there are domestic and international airports across the country, making air travel common for upper- and middle-class Mexicans and tourists.

More than one million people cross the U.S.-Mexico border every day in both directions. Goods are imported and exported between the countries, and tourists travel in both directions. Cross-border shopping in the border towns is a major part of the lives of many citizens in both Mexico and the United States.

gross domestic product (GDP) the value of goods and services produced within a country in a year

GEOGRAPHY CONNECTION

Mexicans in the U.S. workforce play a significant role in the economies of U.S. countries. They provide valuable labor in the United States and add to the cash flow in Mexico through money that is sent home to their families.

- PLACES AND REGIONS** What are the pull factors drawing Mexican citizens to the United States?
- HUMAN SYSTEMS** How would U.S. economic downturns affect the pull of workers to the United States?



V Visual Skills

Creating Charts Have students work in pairs to create a two-column chart to keep track of the actions Mexico has taken to globalize its economy and the challenges it has faced in doing so. Suggest that students enhance their charts by doing additional research to learn more about issues such as competition between industries in Mexico and other countries or the construction of Mexico's transportation system. Invite volunteers to share their completed charts with the class. **Interpersonal, Visual/Spatial**

R Reading Skills

Defining Ask students what the word *private* means. Then point out the word *privatize* in the text. Ask students what the suffix *-ize* means. (*It changes a noun or adjective into a verb.*) Ask: **Based on your understanding of the suffix -ize, what does the word privatize mean? (To make private, or in this case, to put in the hands of private businesses the work of running different activities.)** **Verbal/Linguistic**

V Visual Skills

Analyzing Visuals Have students examine the map and identify its parts and features. Ask: **According to this map, which country offers the greater prospect for good employment and why? (The United States offers the greater prospect because it contains better markets and more jobs.) If nothing changes, what will be the long-term effect on the labor force in Mexico? (Possible answer: If Mexico is not able to establish better markets and stronger sources of employment, so much of its labor force will move north that its economic fortunes will be inexorably linked with those of the United States and its own industries may begin to collapse with nothing to replace them.)** **Visual/Spatial, Logical/Mathematical**

ANSWERS, p. 184

READING PROGRESS CHECK Rivera's work is culturally and politically themed. In his fresco *From Conquest to 1930*, the images of peasants and workers show foreign influence and Mexico's struggle for independence.

CRITICAL THINKING

- The service sector employs the most women in Mexico.
- This photo depicts the industry sector.

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INTERACTIVE IMAGE

Women in the Workforce

Analyzing Use this interactive image and graph to discuss the issue of gender and society in Mexico. Divide students into small groups to discuss the following questions based on what they have learned:

- Why are the largest percent of women employed in the service industry?
- How might family values influence this employment choice?
- How might equality and political changes influence this employment choice?
- What events or actions might change the shape of this chart?

Verbal/Linguistic



INTERACTIVE MAP

Migration to U.S.

Formulating Questions Display this interactive map about Mexican migration to the United States. Ask students to write three questions they have about the map and how it relates to Mexico's immigration and foreign relations policy with the United States. Collect the questions and have the class answer them after reading the lesson. If there are some questions that are not answered, encourage students to research the answers as homework and then report their finding to the class. **Verbal/Linguistic**



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ANSWERS, p. 185

GEOGRAPHY CONNECTION

- Markets and jobs are the pull factors drawing Mexican citizens to the United States.
- Because there would be fewer jobs in the U.S., it is possible the pull would decrease.

W Writing Skills

Informative/Explanatory Have students do additional research to learn more about the economic relationship between the United States and Mexico and how each country benefits and suffers by the current state of affairs. Have students write essays using facts and details to explain the situation and propose solutions that might improve the economies of both countries. **ELL Verbal/Linguistic**

C Critical Thinking Skills

Identifying Central Issues Have students review the information about drug cartels. Ask: **What makes drug cartels influential to the economy?** (By pumping money into local economies in the form of bribes and loans, they support these economies and allow the people to make a living.) Guide a class discussion on the types of things that might need to happen to end the reign of drug cartels. **Logical/Mathematical**

CLOSE & REFLECT

Understanding Relationships Among Events Have students write a few paragraphs explaining some ways life in Mexico has improved over time, some recurring problems Mexico has faced, and the challenges that this country faces today. Invite volunteers to share their paragraphs with the class.

ANSWERS, p. 186

READING PROGRESS CHECK One reason for Mexico's economic prosperity is its high level of economic diversity. Mexico globalized its economy and invested in high-tech industries, resulting in the twelfth highest GDP globally. **DBQ** There are thousands of maquiladoras that cluster at the U.S. border and around cities in the interior. Without political and social reforms, Mexico cannot build a middle class large enough to fuel economic growth.

PRIMARY SOURCES

Maquiladoras and the Middle Class

"Without deep political and social reforms, experts say, the thousands of maquiladora plants that cluster at the U.S. border and around cities in the interior will remain a fixture for decades to come, and Mexico won't build a middle class that's big enough to fuel faster economic growth."

—Tim Johnson, "Mexico's 'maquiladora' labor system keeps workers in poverty," *The Miami Herald*, June 18, 2012

LEAD **IDENTIFYING CAUSE AND EFFECT** Why does the author believe that Mexico cannot build a middle class?

ELA-18.1, ELA-18.2

maquiladoras In Mexico, a manufacturing plant owned by a foreign company

free trade zone an area of a country in which trade restrictions do not apply

border has increased rapidly since the mid-1990s. The infrastructure and availability of high-speed Internet exists, although not in all areas. People in Mexico City, in some areas along the border with Texas, and in business like Monterrey and Guadalajara have the most access. The 17.4 million Mexicans, however, are left out of the digital age. According to the Internet Association, about 82 million people—70 percent of Mexicans—had no access to a computer or the Internet in 2012.

NAFTA, Trade, and Maquiladoras In 1992 Mexico, the United States, and Canada signed the North American Free Trade Agreement (NAFTA). NAFTA is a comprehensive agreement that eliminated most trade restrictions. As a result, trade among the three countries grew by 10 to 15 percent annually. Mexico's economy has been transformed by these increases in trade and the flow of investment.

NAFTA has also been a source of controversy and concern. Mexico is more dependent on the economy of its northern neighbor than the United States is on the Mexican economy. Mexico has protested the harmful effects of subsidized agricultural exports from the United States that may be forcing Mexican small landholders off their farms and into service-based or industrial jobs. Meanwhile, many U.S. workers are concerned about the loss of their jobs to workers in Mexico. During the past 50 years, American and Japanese firms have built manufacturing plants in Mexico. Many of these factories, known as **maquiladoras**, are located close to the U.S.-Mexico border. Maquiladoras are located in **free trade zones**. Such areas benefit foreign corporations by allowing them to hire low-cost labor and produce duty-free exports. They also offer the host country employment opportunities and investment income. Critics of maquiladoras charge that the system often ignores labor laws, thus encouraging low-paying or dangerous jobs.

The illegal drug trade is both an influential and dangerous part of the Mexican economy. Drug cartels often reinvest the money they make into their communities—both through private loans to small businesses and in the form of bribes to police and politicians. This makes them a powerful social and economic force. Many rural mountain communities have relied for generations on the poppy and marijuana fields, controlled by cartels, that support their families. The government has not been able to discourage the growing of these crops because no legal crop can match their cash value for these isolated farmers.

READING PROGRESS CHECK **Assessing** What factors contribute to Mexico's higher standard of living compared to other Latin American countries?

LESSON 2 REVIEW

- Reviewing Vocabulary** (For These Words)
- Classifying** In what ways is Mexico City both a megacity and a primate city? **ELA-18.4**
 - Using Your Notes**
 - Summarizing** Use your graphic organizer on the human geography of Mexico to write a paragraph summarizing society and culture in Mexico today.
 - Answering the Guiding Questions**
 - Drawing Conclusions** What influenced Mexico's political and social structures?

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- Hypothesizing** What factors have shaped Mexico's population patterns?
- Evaluating** How does Mexico's society and culture reflect the country's colonial past?
- Explaining** How has Mexico's place in the global economy changed over time?
- Writing Activity**
- Informative/Explanatory** Write a paragraph discussing how maquiladoras involve Mexico in world trade. **ELA-18.2**

LESSON 2 REVIEW ANSWERS

- Reviewing Vocabulary**
- It is a megacity because it is a city that has absorbed several towns and small cities. It is a primate city because it dominates Mexico's economy, culture, and government, and population is concentrated there.
 - Paragraphs should show understanding of the influences on Mexican society and culture today.
 - Indigenous peoples and the Spanish influenced Mexico's political and social structures. Protests against European rulers and the 1917 constitution were of great influence.
- Using Your Notes**
- Answering the Guiding Questions**
- Indigenous peoples and the Spanish influenced Mexico's political and social structures. Protests against European rulers and the 1917 constitution were of great influence.
 - U.S. and Japanese firms have built maquiladoras in Mexico. They are located in free trade zones, which benefit foreign corporations by allowing them to hire low-cost labor and produce duty-free exports.

30-31/36

There's More Online!

- GO** **Interactive Bellringer** Use a map to identify Mexico's location relative to the United States.
- MAP** **Professional Substitution in Mexico**
- INTERACTIVE SELF-CHECK QUIZ**
- VIDEO** **People and Their Environment: Mexico**

Reading HELPDESK

Academic Vocabulary

- corporate (For These Words)
- ignorance

Content Vocabulary

- deforestation (For These Words)
- sustainable development
- land subsistence

TAKING NOTES: Key Ideas and Details

IDENTIFYING Use a web diagram similar to the one below to take notes as you read about the issues that relate to people and their environment in Mexico.



LESSON 3
People and Their Environment: Mexico

ESSENTIAL QUESTION How do physical systems and human systems shape a place?

IT MATTERS BECAUSE

The ways that people extract and use resources today can have substantial impacts on their well-being in the future. Resource management and sustainable development are important so that future generations can continue to benefit from an area's natural resources. Mexico has been so focused on increasing economic development that conservation of resources has not been as high a priority. However, concerned Mexican citizens are working hard to find ways to preserve the land and all that it provides.

Managing Resources

GUIDING QUESTION Why are Mexico's resources in jeopardy?

Mexico has many natural resources. These include petroleum, silver, copper, gold, lead, zinc, natural gas, and timber. Industrial access to these resources enriches the economy and creates jobs and new investment opportunities. Obtaining and using these resources, however, often results in significant problems that threaten Mexico's environmental health.

Mexico's many ecosystems are experiencing the effects of global climate change and environmental destruction. For example, semi-arid regions are seeing longer droughts and more desertification, or the development of desert-like conditions. Forested areas throughout Mexico are experiencing new patterns in rainfall. Many changes in the environment are a result of increasing migration to urban centers. This puts pressure on the surrounding environment. As cities grow, the surrounding land is cleared and developed.

At the same time, environmental degradation itself is increasing urbanization. The destruction of rural resources forces migration to urban areas. People move to the cities to seek employment away from the hardship of living in regions destroyed by poor environmental management.

About one-third of Mexico is covered in large forests ranging from deciduous and coniferous forests to tropical rainforests. Forest destruction and the loss of biodiversity, however, is occurring at an alarming rate. As Mexico's economy grows, so does the demand for timber.

Mexico 187

Mexico

ENGAGE

R1 Reading Skills

Activating Prior Knowledge Have pairs work together to brainstorm the ways people extract and use natural resources and how these methods may hurt the planet and deplete the resources. Then have partners discuss things people and countries can do to conserve resources. Invite students to share their knowledge with the class.

TEACH & ASSESS

C Critical Thinking Skills

Identifying Cause and Effect Have students create a graphic organizer that will help them record information about the many cause-and-effect relationships described in this lesson that explain current issues in Mexico such as deforestation, water scarcity, and desertification.

Issue	Cause	Effect
Deforestation	land around cities is cleared	loss of biodiversity

Point out that some issues may have many different relevant causes and effects to record. Students should continue to add more information to their charts as they read on in the lesson.

ELL Visual/Spatial

R2 Reading Skills

Defining Ask students what the word *diverse* means (showing a lot of variety). Then point out the word *biodiversity* in the text. Ask students what the prefix *bio-* means (life). Ask students what the suffix *-ity* means (state or quality of being). Ask: **How might you use these words apart to define biodiversity?** (Possible answer: the state of containing a great variety of life.) **ELL Verbal/Linguistic**

ANSWERS, p. 187

TAKING NOTES: **managing resources**—Mexico's ecosystems are experiencing the effects of global climate change and environmental destruction; increasing migration to urban centers is contributing to deforestation and pollution; **human impact**—increased access to manufactured goods results in waste accumulation; increased carbon emissions results in air pollution, causing chronic health conditions; **addressing the issues**—government investment in education and health services leads to a better educated and more literate population that demands more from government and from society

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INTERACTIVE BELLRINGER

Diminishing Frontier Forests in Mexico

Interpreting Visuals This map can be used to introduce the concept of deforestation in Mexico. Explain that there are many causes for deforestation, or the loss or destruction of forests. For example, people might harvest the trees for wood or clear them to make space for farming or cattle-raising. Have pairs of students read the introductory text, study the map, and answer the questions. Then ask students to write a paragraph discussing how and why this map might look different in future years. **Visual/Spatial, Verbal/Linguistic**



Next page

V Visual Skills

Analyzing Visuals Have students study the map key, labels, and other parts of this map. **Ask:** What do the different colors of land indicate? (the environmental threat that puts each area in danger) What threatens brown land? (deforestation) What threat is most prevalent in the northern plateau area of Mexico? (overgrazing) How could looking at this map help the government and businesses of Mexico plan a better strategy for reducing environmental deterioration? (Possible answer: They could see how types of environmental degradation correspond to the geography of Mexico and make connections to the cause-and-effect relationships between pollution and geography. Once they understand these relationships, they can adjust the collection and use of natural resources to create new effects and outcomes.) **EN Visual/Spatial, Logical/Mathematical**

Content Background Knowledge

Controlling Deforestation To help control the spread of deforestation, the Mexican government pays landowners not to cut down the forests in some areas. The government tries to limit the amount of these incentive payments so that the landowners do not pursue other ways of making money, which would hurt the economy, but they do hope to reduce poverty with this money. Concerned that some people may resort to cutting down trees on unprotected lands, they are monitoring the areas bordering the protected land to see if they detect any sudden reduction in trees there.

W Writing Skills

Informative/Explanatory Have students recall what they have read about the limited water resources in Mexico. Have them write a paragraph describing the importance of water to life in Mexico and what factors affect people's use of this natural resource. **Logical/Mathematical**

ANSWERS, p. 188

GEOGRAPHY CONNECTION

- The west coast of Mexico has the most industrial contamination.
- Overgrazing affects the largest area of land in Mexico.



GEOGRAPHY CONNECTION

Mexico has been hit hard by drought with abundant resources, but environmental deterioration threatens its lands.

- THE ENVIRONMENTAL ZONES** Which coast of Mexico experiences the most industrial contamination?
- ENVIRONMENT AND SOCIETY** Which threat affects the largest area of land in Mexico?

corporate formed into an association and entered by law with the rights and liabilities of an individual

deforestation the loss or destruction of forests, usually by logging or farming

ignorance lack of knowledge, education, or awareness

resources, which are an important part of Mexico's export economy. The **corporate** logging industry is one source of the problem, but not the only cause of **deforestation**. The growing population demands more food resources. In response, ranchers and farmers are clearing the forests and creating new areas for growing food and grazing cattle.

In 2000 Mexico developed the National Biodiversity Strategy and Action Plan. The plan has four major objectives: to conserve and protect the biodiversity components, to value the different components of biodiversity, to promote knowledge of biodiversity, and to encourage sustainable and diversified use of biodiversity components. Reducing public **ignorance** of the consequences of environmental mismanagement should reduce the loss of Mexican forest resources. **Sustainable development** projects that utilize natural resources responsibly are the only solution to the demands of a growing population.

Mexico has numerous mountain ranges, dry northern plains, vast southern jungles, and many large cities. Consequently, only 12.7 percent of Mexico's land is arable, or suitable for farming. Producing enough agricultural products is difficult in Mexico. With only a few major rivers and lakes, water resources are precious. The demand for water resources in the northern part of the country is so high that desertification is a growing problem. Climate change has meant that recent years have seen an increase in drought throughout northern Mexico. Both ranchers and farmers have suffered from the water shortages.

More than 50 percent of Mexico's population lives below the poverty line, many in substandard conditions in large urban centers. Both rural and urban

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INTERACTIVE MAP

Environmental Deterioration in Mexico

Predicting Use this interactive map to show the environmental resources and deterioration threats in Mexico. Remind students that growing population demands, as well as the corporate logging industry, have both led to deforestation and a depletion of natural resources. Explain that currently Mexico's government has stepped in to try to limit and control environmental mismanagement. Have students write a paragraph predicting what they think will happen to this region over time. Ask them to explain if they believe the rainforests and other natural resources in Mexico can be preserved for future generations to enjoy. **Verbal/Linguistic**



removal. Human needs are putting heavy demands on land, water, and timber resources. Pollution of water, air, and land is a growing concern for Mexico.

Mexico City in particular is facing serious problems with its water supply. Getting water to more than 20 million residents is a challenge for the city's struggling infrastructure. The natural underground reserves of water have been pumped dry. Once water is removed, the clay soil compacts in the empty space and the water cannot be replaced. Over the years, these empty water reservoirs in and around Mexico City have been collapsing. This creates sinkholes, or depressions in the land, and renders the surface. Buildings in Mexico City are tilting because the land underneath them has been emptied of water. This process is called **land subsidence**.

The poor are the greatest victims of the urban water crisis. Municipal water supplies often do not reach their settlements on the outskirts of the city. Citizens groups have been working to improve the water supply through advocacy and education, and by encouraging the government to privatize water management.

READING PROGRESS CHECK

Exploring the Issues Describe how large-scale urbanization has affected Mexico City.

Human Impact

GUIDING QUESTION How do human activities impact Mexico's environment?

Rapid urban growth in the last century and high rates of poverty have made social development a constant challenge in Mexico. As portions of the economy grow, access to consumer goods and the number of consumers increase. As a result, waste accumulation is a growing challenge. Without infrastructure to support proper waste disposal, pollution is an enormous problem in urban areas.

Mexico's economy is still growing. When people achieve a new economic status, they invest in material goods such as electronics and cars. Cars are a major contributing factor to air pollution problems. Mexico City is located in a valley. Carbon emissions from cars are often trapped in the valley. This creates a toxic haze over the city. As a result, the sky around Mexico City is often a dull gray or brown. The government has been making emissions regulations a priority to try to reduce the level of pollution in the air. Until these regulations take effect, citizens will continue to suffer from health problems related to air pollution, such as an increased risk of asthma and chronic lung infections.

READING PROGRESS CHECK

Analyzing What are the causes and consequences of air pollution in an urban environment?

Addressing the Issues

GUIDING QUESTION How are governments in Mexico addressing environmental issues?

The last 20 years have seen a rise in political action and activity by many Mexican citizens. As a result of government investment in health and education, a better educated and more literate population has begun to demand more from their government and from society. These citizens want better living conditions and have also shown a concern for protecting the environment.

Mexico has enacted new regulations to try to curb the destruction of natural resources. The government is also working to support farms and businesses that contribute to the economy and are interested in protecting those resources.

SCIENCE

Environmental Science

Investigating how human societies affect the natural world and how the environment, in turn, affects human life is the work of environmental scientists. They also examine how to preserve and repair these relationships in order to create a sustainable society.

Environmental science crosses the boundaries of several subjects, including geography. Environmental scientists use many geographic tools, such as geographic information systems (GIS) and remote sensing. They determine the conditions of and changes in environments to examine the causes of destructions and to create plans for remediation and development.

CONNECTION What tools are commonly used in both the fields of environmental science and geography?

sustainable development technological and economic growth that does not deplete the human and natural resources of a given area

land subsidence the sinking or settling of land to a lower level in response to various natural and human-caused factors

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R Reading Skills

Inferring Discuss with students the reasons behind the urban water crisis in Mexico City and why it threatens the poor more than anyone else. **Ask:** Why are the poor residents more affected than other people living in Mexico City? (The poor cannot afford the more expensive housing inside the city, so they live in the cheaper surrounding areas where clean water may not be piped.) Why might privatizing the water supply solve this problem? (Possible answer: The government is overextended and does not have the resources needed. Private businesses with their own sources of funding might be more successful in building the pipes and infrastructure needed to transport clean water to all areas.) **Logical/Mathematical**

Making Connections

Geography of Air Pollution Mexico City is not the only metropolitan area with air pollution problems. Many cities in the United States struggle with issues of pollution, too. The geography of certain cities works to trap the pollution, causing poor air quality. Los Angeles, California, is located in a basin with mountains to the east that trap and hold polluted air over the city. Chattanooga, Tennessee, is located in a valley where air flows over neighboring mountains and is trapped, holding air pollution in place. At one time it was the most polluted city in the country for poor air quality.

T Technology Skills

Acquiring Information Have students form groups and use online resources to collect more in-depth information about the work an environmental scientist does. Have groups create a visual that presents information about representative jobs an environmental scientist performs, places where they work around the world, and images of the types of equipment they use. Invite groups to present their visuals to the class. **Verbal/Linguistic, Visual/Spatial**

ANSWERS, p. 189

- READING PROGRESS CHECK** More than 50 percent of Mexico's population lives below the poverty-line, in substandard conditions in large urban centers. There is a struggle to provide basic resources like clean water, electricity, and garbage removal. The removal of water from underground reserves to meet the needs of a growing population has resulted in sinkholes, causing buildings to tilt.
- READING PROGRESS CHECK** As portions of the economy grow, access to manufactured goods, such as cars, increases. Carbon emissions from cars can be trapped above a city, making a toxic haze. This air pollution can be carried into waterways.

Connecting Geography Environmental scientists use many geographic tools, including geographic information systems and remote sensing.

Next page



C Critical Thinking Skills

Making Generalizations Review the first two paragraphs with students. **Ask:** *What is significant about those involved in decision making as part of the Border 2020 Program? (It is designed to empower local citizens and businesses in affected communities to make the decisions.) What risk of the REDD+ program do some groups worry about? (They fear companies will buy carbon credits to avoid having to reduce pollution, which would affect indigenous people and forest communities because their lands would be taken.)* Have students recall the relationship between the governing groups in Mexico and the people who have been governed. **Logical/Mathematical**

T Technology Skills

Exploring Issues Divide students into small groups and assign each group one of the programs mentioned in this section—the Border 2020 Program, the REDD+, and *Muévete en Bici*. Have each group use the Internet or library resources to research more details about the history and outcomes of their assigned program. Groups should use their research to evaluate how effective their assigned program has been so far at combating the problem it was designed to solve. Have groups present their findings to the class. Then lead a class discussion about the serious issues facing Mexico today. **Verbal/Linguistic**

CLOSE & REFLECT

Expressing Have students think about the reasons Mexican people rely on their natural resources and the negative outcomes that are sometimes produced when they harvest and use them. Ask each student to pick one way that Mexico's resources are in jeopardy, write a description of the impact of human activity on this resource, and then explain how Mexico is responding to try to fix this situation. **190**

ANSWERS, p. 190

READING PROGRESS CHECK The Border 2020 Program addresses the environmental and public health problems in the border region. The Reducing Emissions from Deforestation and Forest Degradation program uses incentives to reduce the emission of greenhouse gases.

CRITICAL THINKING

1. They are promoting taking care of beaches and oceans.
2. They can provide education and information on issues that encourage people to participate in protecting their environment. They can organize large groups of people and generate great enthusiasm.

environmental organizations are making efforts to fill the needs of protecting the environment.

CRITICAL THINKING

1. **Analyzing Cause and Effect** Explain how efforts by government organizations can lead to positive change in environmental issues.
2. **Identifying Cause and Effect** Explain how efforts by government organizations can lead to positive change in environmental issues.



Pages: 34-35/36

For example, the Border 2020 Program is an environmental program that emphasizes regional and local approaches for decision making, priority setting, and project implementation. It also addresses the environmental and public health problems in the U.S.-Mexico border region. The program empowers citizens by encouraging meaningful participation from communities and local business owners.

The Reducing Emissions from Deforestation and Forest Degradation (REDD+) program is a program designed to use market and financial incentives to reduce the emission of greenhouse gases. Yet some groups worry that for indigenous peoples and other forest communities, REDD+ poses significant risks. That is because it enables companies to buy carbon credits rather than reduce pollution at home. This could lead to indigenous lands being taken in exchange for permits that allow industries to continue to pollute.

Another program aimed at protecting the environment and reducing pollution is *Muévete en Bici*. Launched in 2007 by Mexico City mayor Marcelo Ebrard, the program closes major thoroughfares to auto traffic on Sundays and gives the right of way to tens of thousands of cyclists in a 14-mile (22.5-km) loop. The mayor followed the Sunday rides with the city's *Roskoi* program in 2010. This gives subscribers unlimited access to bicycles at stations for \$25 a year. In 2012 the program had 4,000 bicycles at 275 stations for 73,000 bicyclists. Encouraging the use of bicycles contributes to the reduction of air pollution in Mexico City by reducing the number of cars on the roads.

READING PROGRESS CHECK
Describe Describe two specific steps taken by the Mexican government to address pollution and resource management.

LESSON 3 REVIEW

Reviewing Vocabulary

1. **Describe** Define sustainable development and provide at least one example of how it pertains to Mexico. **183-184**

Using Your Notes

1. **Identify Connections** Using your graphic organizer, write a paragraph discussing how Mexico manages its resources.

Answering the Guiding Questions

3. **Making Generalizations** Why are Mexico's resources in jeopardy?

4. **Speculating** How do human activities impact Mexico's environment?

5. **Identifying** How are governments in Mexico addressing environmental issues?

Writing Activity

6. **Argument** Write a letter designed to persuade the government of Mexico to address an environmental problem discussed in this lesson. **183-184**

LESSON 3 REVIEW ANSWERS

Reviewing Vocabulary

1. Sustainable development is technological and economic growth that does not deplete the human and natural resources of an area. The National Biodiversity Strategy and Action Plan was developed to encourage sustainable and diversified use of biodiversity components.

Using Your Notes

2. Mexico's ecosystems are experiencing the effects of global climate change and environmental destruction. As natural resources are destroyed, humans migrate to urban areas, which stresses the surrounding environment. The government has taken steps to promote sustainable development, including the National Biodiversity Strategy and Action Plan.

Answering the Guiding Questions

3. Mexico's resources are in jeopardy due to global climate change and a growing economy, which leads to environmental destruction.
4. Manufactured goods are being produced at greater rates; without infrastructure to support proper waste disposal, pollution is a problem. Carbon emissions from cars become trapped in the air, creating a toxic haze.
5. Governments have created a variety of programs to address environmental issues.

Writing Activity

6. Letters should show an understanding of how the environmental problem impacts Mexico and how solving the problem would help Mexico.

UNIT 7 ASSESSMENT

Directions: On a separate sheet of paper, answer the questions below. Make sure you read carefully and follow all parts of the questions.

Lesson Review

Lesson 1

1. **Explaining** Describe how Mexico's location on the "Ring of Fire" has helped to shape its landscape.
2. **Describing** Describe the Mexican Plateau and its importance to Mexico in terms of agriculture.
3. **Drawing Conclusions** What industries would be most affected when an oil spill occurs in the Gulf of Mexico?

Lesson 2

1. **Evaluating** How has colonialism and indigenous culture shaped the human geography of Mexico?
2. **Analyzing** How has the Catholic Church influenced Mexican culture?
3. **Summarizing** How does family shape Mexican society?

Lesson 3

1. **Analyzing** Describe how the growth of Mexico's urban middle class has affected the economy of Mexico.
2. **Explaining** What are two results of rural-to-urban migration in Mexico?
3. **Identifying Cause and Effect** What are the causes and effects of deforestation in Mexico?

Critical Thinking

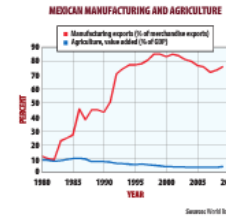
1. **Adding Generalizations** Has the marketplace system had a positive or negative effect on Mexican people? Explain.
2. **Identifying Cause and Effect** Explain how the growth of the middle class in Mexico has contributed to an increase in awareness and political action in regard to environmental issues.
3. **Drawing Conclusions** How might wars between drug cartels affect the economy of Mexico?

Word Extra Help?

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21st Century Skills

Review the graph, then answer the questions that follow.



Using Graphic, Charts, Diagrams, and Tables By how much did Mexico's agricultural exports increase from 1980 to 2010?

Comparing and Contrasting How does Mexico's manufacturing growth rate compare to its agricultural growth rate?

College and Career Readiness

1. **Change and Continuity in Economics** As an economic geographer working for the Inter-American Development Bank, you have been asked to help the Mexican government diversify agricultural output. Write a proposal explaining why dependence on a single cash crop can be risky. Then describe how the government could use subsidies, improved technology, and cash payments to help diversify agriculture. Cite an example from primary and secondary sources.

ASSESSMENT ANSWERS

Lesson Review

Lesson 1

1. The Pacific Plate has collided with other tectonic plates, and the seismic activity has helped shape Mexico's landforms.
2. It has moderate consistent temperatures, which give rise to crops such as grain. Most of the food grown in Mexico comes from the Mexican Plateau.
3. Fishing industries would be most affected.

Lesson 2

1. Colonialism provided the many cultures of Mexico a unifying identity. It also created the large gap between the wealthy and the poor that still exists today. Indigenous cultures brought many languages and belief systems, and have had a strong influence on the arts.

3. The Spanish used Catholic missions to get a foothold in Mexico. Mission churches were used as military outposts and market towns. The traditional indigenous beliefs melded with Catholic culture in a process called syncretism.

6. Family is important in Mexican society. Many Mexican families are extended families, with several generations in the same home. This is particularly true in rural areas and poorer communities. Extended families provide social support.

Lesson 3

7. People are able to purchase material goods, such as electronics and cars. This places money into the economy, causing it to grow.

College and Career Readiness

1. Each proposal should include: an explanation as to why dependence on a single cash crop creates risk to the economy and environment; a discussion of ways the Mexican government could utilize subsidies, improved technology, and cash payments to aid in diversification; and examples from a primary and a secondary source.

21st Century Skills

1. Mexico's agricultural exports decreased by about five percent from 1980 to 2010.
2. The growth rate of Mexico's manufacturing exports is much higher.

5. As more people move to the cities, the surrounding land is cleared and developed. Cities do not have the infrastructure to support a growing urban population, leading to pollution and limited water supplies.
6. Corporate logging and ranches and farmers clearing the forests to create new areas for growing food and grazing cattle cause deforestation. Effects include loss of habitat, issues with greenhouse gases, and rural to urban migration.
11. The population is becoming more literate and better educated, and has begun to demand better living conditions and to focus on protecting the environment.
12. Cartels often reinvest in communities, which supports the local economy. Farmers are also unable to make as much growing legal crops as they can from growing illegal drugs for the cartel. The loss of income for these farmers and communities would hurt the economy.

Critical Thinking

1. Student answers may vary, but must be supported by lesson. Answers could include the negative effects of companies ignoring labor laws, which encourages dangerous and low paying jobs.



Research and Presentation

16 Student answer may vary, but should identify a specific art form such as murals, weaving, mosaics, and/or ceramics. They should describe the art form, explain the type of materials used in it, and explain the cultural significance of the art form.

Exploring the Essential Question

17 Poster should illustrate how human systems have had an impact on Northern Plateau, Mexico City, Yucatán Peninsula, Sierra Madre Occidental or Oriental, or Southern Highlands; posters should include photos, graphs, charts, and maps.

Applying Map Skills

- 18 Mining locations are scattered in the interior and on the northwest coast. Mining contributes to the deforestation of these areas.
- 19 The semi-arid climate dominates Mexico along the Tropic of Cancer causing the vegetation to be limited to shrubs, grassland, and cacti.
- 20 Student answers may vary, but should identify the Rio Grande and explain how it appears as a border between Mexico and Texas.

Analyzing Primary Sources

- 21 It marked the end of a 26,000 year galactic cycle and began a new one.
- 22 Each Baktun represents 144,000 days, almost 400 years.
- 23 Student answers may vary, but should be represented by historical evidence from the chapter such as gaining independence from Spain.

Writing About Geography

24 The essay should suggest suitable locations for constructing new cities to relieve Mexico's population pressures. It should also detail the types of resources required to sustain large populations.

Just click, answer, or questions for more. Note save you, and carefully and

Research and Presentation

16 **Research Skills** Use Internet and library resources to gather information about a particular art form popular in Mexico. Specifically, your research should focus on a description of the art form, the type of materials used in the art form, and the cultural significance of the art form.

Exploring the Essential Question

17 **Making Connections** Choose one of the places discussed in this chapter: Northern Plateau, Mexico City, Yucatán Peninsula, Sierra Madre Occidental or Oriental, or Southern Highlands. Use what you have learned about human systems—history, politics, population, society, culture, and economics—to create a poster illustrating how human systems have impacted your chosen place. Remember to consider the interactions of human systems. Posters should be visual and can include photos, graphs, charts, and maps.

Applying Map Skills

Refer to the Unit 3 Atlas to answer the following questions.

- 18 **Environment and Society** What generalizations can you make about the location of Mexico's mining areas?
- 19 **Physical Systems** What is the predominant type of vegetation along the Tropic of Cancer in Mexico?
- 20 **Human Systems** Using your mental map, imagine you are traveling with your family from the southern tip of Texas to the Mexican Plateau. What major river would you see during your travel? Explain how you visualize this body of water as you read a map, and then explain how this body of water would appear if you were to fly over it during your trip.

EXERCISE Analyzing Primary Sources

Use the document to answer the following questions.

PRIMARY SOURCE

"In the most of simple terms, this time is solstice. December 21, 2012, marks the end of the 13th Baktun (each Baktun is 144,000 days—or nearly 400 years on the Mayan calendar), and it marks the beginning of the 14th Baktun. The significance of 21 December, 2012, this calendar's end, and this particular 13/14 Baktun transition, is that it marks the end of a 26,000 year galactic cycle, and begins the calendar of the next 26,000 years galactic cycle. By the very detailed prophecies of the Mayas, this means leaving the calendar of Night and beginning the calendar of Day."

—Jon Whitman, "How the Mayas of Today Are Marking December 21," *Weblog/Geographic Experiences Journal*, December 18, 2012

- 21 **Determining Importance** What was the significance of December 21, 2012, on the Mayan calendar? **HS-1-14.4**
- 22 **Identifying** How many days and years does each Baktun represent on the Mayan calendar?
- 23 **Making Connections** What events in Mexico's history might be symbolic of the transition of "leaving the calendar of Night and beginning the calendar of Day"?

Writing About Geography

- 24 **Argument** Use standard grammar, spelling, sentence structure, and punctuation to write a one-page essay suggesting suitable locations for constructing new cities to relieve the population pressures that exist in Mexico City. Be sure to describe the types of resources required to sustain large populations. **HS-12-11.1**

Need Extra Help?

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networks Online Teaching Options

WORKSHEET

Chapter Tests and Lesson Quizzes

Assessing Have students complete the Chapter Tests and Lesson Quizzes to assess student understanding throughout the chapter. These assessment tools offer chapter and lesson evaluation through a variety of question formats including document-based questions.

