

Essential Question Preview

Which geographic concepts are most useful for understanding the world's people?

Have students consider the Essential Question and capture their initial responses.

Explore the Essential Question

- Explain that geographers understand the world's people by studying their cultures. A culture is a set of beliefs, values, and practices that a group of people have in common.
- Point out that geographers study population and settlement patterns—where people live, how many people live there, and the effects those people have on the environment. Geographers track population changes and settlement patterns and study the reasons for those changes.

Encourage students to keep the Essential Question in mind as they work through the module. Help students plan inquiries and develop their own supporting questions such as:

What are the key elements of culture?

How are culture, population, and settlement patterns impacted by the physical environment?

You may want to assign students to write a short essay in response to the Essential Question when they complete the module. Encourage students to use their notes and responses to inform their essays.

Explore the Online Video

ANALYZE VIDEOS

Young People Keep Mariachi Alive

Invite students to watch the video to learn how the young people of Mexico are keeping the tradition of mariachi music alive for future generations.

History Why is mariachi music important to the people of Mexico? *Mariachi is an important part of Mexican culture. It has a rich history dating back to the 19th century. The people of Mexico want to continue the tradition of mariachi music for future generations.*



Module 3

The Human World

Essential Question

Which geographic concepts are most useful for understanding the world's people?



About the Photo: Many of the world's people come together every four years to compete in the Olympics.

In this module, you will learn about geographic concepts that help to explain the human world.

What You Will Learn

Lesson 1: Elements of Culture 95
The Big Idea Culture, a group's shared practices and beliefs, differs from group to group and changes over time while maintaining features common to all societies.

Lesson 2: Population 106
The Big Idea Population studies are an important part of geography.

Lesson 3: Settlement Patterns 113
The Big Idea Many factors influence where people settle and how settlements develop.

Lesson 4: Human-Environment Interaction 118
The Big Idea Specific environments present distinct opportunities for people to meet their needs and unique challenges to which they must adapt.

Explore ONLINE!



VIDEOS, including ...

- Henry Ford's Motor Company
- Computers
- Hoover Dam

- Document-Based Investigations
- Graphic Organizers
- Interactive Games
- Channel One News Video: Young People Keep Mariachi Alive
- Interactive Map: Cultural Diffusion of Baseball
- Interactive Graph: World Population Growth, 1500–2000
- Image with Hotspots: How Fracking Works

Lesson 1 Big Idea

Culture, a group's shared practices and beliefs, differs from group to group and changes over time while maintaining features common to all societies.

Main Ideas

- Culture is the set of beliefs, goals, and practices that a group of people share.
- The world includes many different culture groups.
- New ideas and events lead to changes in culture.
- The features common to all cultures are called cultural universals.
- All societies have social institutions that help their groups survive.
- Every culture expresses itself creatively in a variety of ways.
- All societies use technology to help shape and control the environment.

Lesson 2 Big Idea

Population studies are an important part of geography.

Main Ideas

- The study of population patterns helps geographers learn about the world.
- Population statistics and trends are important measures of population change.



Human-Environment Interaction Farming is one way that humans interact with the environment. These rice farmers in Vietnam utilize the area's rich soil.

Culture Thousands of different cultures make up our world. Clothing, language, and music are just some parts of culture.



Population Geographers study human populations, like this one in India, to learn where and why people live in certain places.



The Human World 93

Explore the Images

The Olympics In the opening and closing ceremonies of the Olympics, athletes from around the world march together. Events such as the Olympics can promote global connections, allowing people to learn about many different cultures.

Human-Environment Interaction Ask students how the environment of the country might affect the people and culture of the country. Explain that human-environment interaction is also something geographers study.

Culture Using a map ask students to select a country. Ask them to imagine a boy and a girl their age and describe how they are dressed, what their favorite foods are, and what music they might enjoy. Explain that all of these things are part of culture.

Population Ask students to guess the population of the country they selected. Look up the population and explain that geographers study population to learn more about an area and its people.

Analyze Visuals

Have students examine the images and then answer the following question:

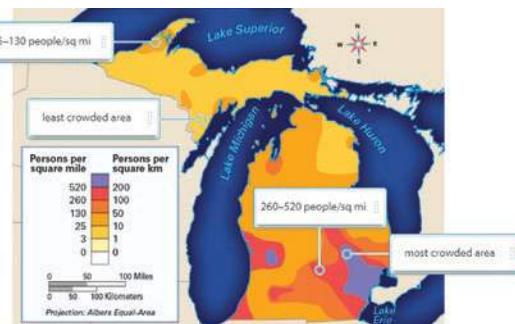
What are some of the topics geographers study to learn about the world's people? *culture, population, settlement patterns, and human-environment interaction*

► Online Module Flip Cards

Use the flip cards as a whole class activity or in student pairs to preview the module's Key Terms and Places. Students can guess the meaning of each word, then review its definition, or do the reverse, using the flip card's toggle button to switch from "Term" to "Definition" mode. Students can also use the flip cards at the end of the module as a review tool before taking the Module Assessment.

► Online Map Activity

Students can use this activity to review some of the locations discussed in this module. To complete, have students drag each label to the correct location on the map.



Lesson 3 Big Idea

Many factors influence where people settle and how settlements develop.

Main Ideas

- Natural resources and trade routes are important factors in determining location for settlements.
- Areas can be defined as urban or rural.
- Spatial patterns describe ways that people build settlements.
- New technology has improved the interaction of regions with nearby and distant places.

Lesson 4 Big Idea

Specific environments present distinct opportunities for people to meet their needs and unique challenges to which they must adapt.

Main Ideas

- Geographers examine how environmental conditions shape people's lives.
- Human activity changes specific places, regions, and the world as a whole.

Reading Social Studies

Reading Social Studies

READING FOCUS

Understand Main Ideas

Ask students to bring in newspaper or magazine articles that interest them. Have each student read his or her article and select two or three paragraphs to work with. For each paragraph, have students identify the main idea. Then ask students to find partners with whom to exchange articles. Have students read the selected paragraphs and identify the main idea for each. When partners are finished, have them compare main ideas. Ask students if they each identified the same main idea.

You Try It!

Main Idea: People migrate for many reasons. Details: Some factors push people to leave their country, while others pull people away; poverty and disease forced some 1.5 million people to leave Ireland during the potato famine of the mid-1800s; thousands of British citizens migrated to Australia in search of cheap land in the 1800s and early 1900s.

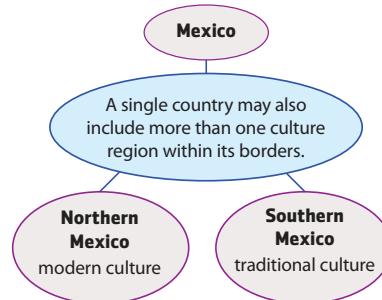
Understand Main Ideas

READING FOCUS

Main ideas are like the hub of a wheel. The hub holds the wheel together, and everything circles around it. In a paragraph, the main idea holds the paragraph together and all the facts and details revolve around it. The main idea is usually stated clearly in a topic sentence, which may come at the beginning or end of a paragraph. Topic sentences always summarize the most important idea of a paragraph.

To find the main idea, ask yourself what one point is holding the paragraph together. See how the main idea in the following example holds all the details from the paragraph together.

A single country may also include more than one culture region within its borders. Mexico is one of many countries that is made up of different culture regions. People in northern Mexico and southern Mexico, for example, have different culture traits. The culture of northern Mexico tends to be more modern, while traditional culture remains strong in southern Mexico.



YOU TRY IT!

Read the following paragraph, and then use a graphic organizer to identify the main idea. Create as many circles as you need to list the supporting facts and details.

People migrate for many reasons. Some factors push people to leave their country, while others pull people away. During the Irish potato famine of the mid-1800s, poverty and disease forced some 1.5 million people to leave Ireland. In the 1800s and early 1900s thousands of British citizens migrated to Australia in search of cheap land.

As you read this module, find the main ideas of the paragraphs you are studying.



Elements of Culture

- Culture Traits
- Village Society
- Education
- Monumental Architecture
- Universal Themes in Art

- Biography: Thomas Alva Edison
- Margaret Mead (1901–1978)
- Cultural Customs
- Saving a Piece of Culture

- Alexander Graham Bell and the Astonishing Telephone
- Henry Ford's Motor Company

- Chart: World Religions
- Map: Cultural Diffusion of Baseball

Visuals

LESSON 1

Big Idea

Culture, a group's shared practices and beliefs, differs from group to group and changes over time while maintaining features common to all societies.

Extend
and Enrich

Maps,
Graphs, and
Charts

Sources

Assessment

- Document-Based Investigation:
Arab Culture Region

- Key Terms Review
- Reading Check
- Graphic Organizer Activity
- Lesson Assessment

► Online Lesson 1 Enrichment Activities

Margaret Mead (1901–1978)

Biography Students read about the scientist Margaret Mead, who spent her life studying human cultures. Then they write questions they would ask her in an interview following her return from studying Samoan culture.

Cultural Customs

Create a Poster Students plan and create a poster that shows different cultural customs from five different countries around the world.

Saving a Piece of Culture

Video Students watch a video about the revival of the language of the Wampanoag tribe of New England.

Watch Channel One News



Elements of Culture

The Big Idea

Culture, a group's shared practices and beliefs, differs from group to group and changes over time while maintaining features common to all societies.

Main Ideas

- Culture is the set of beliefs, goals, and practices that a group of people share.
- The world includes many different culture groups.
- New ideas and events lead to changes in culture.
- The features common to all cultures are called cultural universals.
- All societies have social institutions that help their groups survive.
- Every culture expresses itself creatively in a variety of ways.
- All societies use technology to help shape and control the environment.

Key Terms and Places

culture
culture trait
culture region
ethnic group
multicultural society
cultural diffusion
cultural universals
social institutions
heritage
universal theme
technology

If YOU lived there ...

You live in New York City, and your young cousin from out of state has come to visit. As you take her on a tour, you point out the different cultural neighborhoods, like Chinatown, Little Italy, Spanish Harlem, and Koreatown. People speak in other languages as they venture to the nearby shops and restaurants that offer a variety of cultural goods. Your cousin can see that shopping and eating special foods are common activities for many cultures. Still, she isn't quite sure what *culture* means or why these neighborhoods are so different from her own.

How can you explain what culture is?

What Is Culture?

If you traveled around the world, you would experience many different sights and sounds. You would probably hear unique music, eat a variety of foods, listen to different languages, see distinctive landscapes, and learn new customs. You would see and take part in the variety of cultures that exist in our world.

A Way of Life What exactly is culture? **Culture** is the set of beliefs, values, and practices that a group of people have in common. Culture includes many aspects of life, such as language and religion, that we may share with people around us. Everything in your day-to-day life is part of your culture—from the clothes you wear to the music you hear to the foods you eat.

On your world travels, you might notice that all societies share certain cultural features. All people have some kind of government, educate their children in some way, and create some type of art or music. However, not all societies practice their culture in the same way. For example, in Japan, the school year begins in the spring and students wear school uniforms. In the United States, however, the school year begins in the late summer and most schools do not require uniforms. Differences like these are what make each culture unique.

Teach the Big Idea

1. Whole Class Open/Introduction

If **YOU** lived there ...

How can you explain what culture is?

Review the scenario with students and lead a class discussion around responses to the question. You may wish to review the following points to frame your discussion.

Consider the FOOD in each neighborhood:

- the menus in the restaurants
- the items sold in markets
- the food in farmers' markets and festivals

Consider neighborhood LANGUAGES:

- the native languages spoken
- the amount of English spoken
- the languages in signs, posters, and leaflets

2. Direct Teach Introduce the Big Idea: *Culture, a group's shared practices and beliefs, differs from group to group and changes over time while maintaining features common to all societies.* Ask students to name some of their family's favorite foods. Have them describe the types of music they and other family members listen to. How do they celebrate special events, such as birthdays or anniversaries? Explain that these are all parts of a person's culture.

3. Practice/Assess/Inquire Write three headings on the board: *Culture*, *Culture Groups*, and *Culture Change*. Call on students to add words or phrases under each to describe the United States.

Challenge students to provide examples under each from countries other than the United States.

4. Explore (Collaborative Exploration) Ask each student to write on a piece of paper one culture that was either mentioned in the text or that they know about. They should list some culture traits and how that culture has changed. Call on students to share what they have written.

5. Whole Group Close/Reflect Ask students to discuss their own culture with a parent and make a list of some favorite culture traits. They can also discuss and list how their culture is changing.

*Alternative Assessment Handbook, Rubric 11: Discussions

ONLINE DOCUMENT-BASED INVESTIGATION

The Human World

Arab Culture Region is the first of four document-based investigations that students will analyze in The Human World. Have students navigate through the carousel noting different elements of Arab culture.

Teach the Main Idea

Culture is the set of beliefs, goals, and practices that a group of people share.

Describe What role do families play in the development of culture? *pass down traditions such as foods, holiday customs, and so on*

Identify What is one culture trait you share with many other people around the world? What is one that is not shared by many other cultures? *Possible answers: shared—love of soccer, movies, computers; not shared—particular holiday customs, education, clothing style, and so on*

Make Generalizations What are some culture traits that immigrants to your area

have adopted from the United States?

Possible answers: language, style of dress, educational system, foods, involvement in government, and so on

More About ...

Food Around the World Food is a unique part of culture. Certain fish eggs, called caviar, have been a favorite in Russia for centuries, while in Japan, some types of raw fish, called sushi, have been popular for a long time. In France, geese were specially raised and overfed so their livers would taste a certain way. Today, all of these foods are enjoyed in many parts of the world.

► ONLINE GRAPHIC ORGANIZER

Elements of Culture

As students read the lesson, have them use the graphic organizer to take notes. Students can review their graphic organizer notes at the end of the lesson to answer the following question:

Find Main Ideas How do cultures continue to change? *Cultures continue to change over time as people move around the world and share new ideas.*

► ONLINE LESSON FLIP CARDS

Review Key Terms and Places

Students can use the flip cards in the Lesson Review at any time to review the lesson's key terms and places: **culture**, **culture trait**, **culture region**, **ethnic group**, **multicultural society**, **cultural diffusion**, **cultural universals**, **social institutions**, **heritage**, **universal theme**, **technology**.

► ONLINE INTERACTIVE VISUALS

Image Compare: Culture Traits

Have students explore and compare the images using the interactive slider. You may wish to use the associated question as a discussion prompt.

Analyze Visuals What culture traits do these students share? Which are different? *Shared traits include eating with friends, wearing western style clothing; different traits include manner of eating and food eaten.*

Culture Traits

These students in Japan and Kenya have some culture traits in common, like eating lunch at school. Other culture traits are different.

Japan

School lunches in Japan typically include rice, some form of protein such as fish or chicken, vegetables, and soup.



Culture Traits

These students in Japan and Kenya have some culture traits in common, like eating lunch at school. Other culture traits are different.



Analyze Visuals

What culture traits do these students share? Which are different?

Culture Traits Cultural features like starting the school year in the spring or wearing uniforms are types of culture traits. A **culture trait** is an activity or behavior in which people often take part. The language you speak and the sports you play are some of your culture traits. Sometimes a culture trait is shared by people around the world. For example, all around the globe, people participate in the game of soccer. In places as different as Germany, Nigeria, and Saudi Arabia, many people enjoy playing and watching soccer.

While some culture traits are shared around the world, others change from place to place. One example of this is how people around the world eat. In China, most people use chopsticks to eat their food. In Europe, however, people use forks and spoons. In Ethiopia, many people use bread or their fingers to scoop their food.

Development of Culture How do cultures develop? Culture traits are often learned or passed down from one generation to the next. Most culture traits develop within families as traditions, foods, or holiday customs are handed down over the years. Laws and moral codes are also passed down within societies. For example, many laws in the United States can be traced back to England in the 1600s and were brought by colonists to America. Among these are the right to a speedy trial, freedom of petition, and due process of law.

Cultures also develop as people learn new culture traits. Immigrants who move to a new country, for example, might learn to speak the language or eat the foods of their adopted country.

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STRUGGLING READERS

Culture Traits

1. Review the paragraph on Culture Traits with students, defining and explaining any difficult words.
2. On a classroom map or using the textbook atlas, have students locate the countries mentioned: Germany, Nigeria, Saudi Arabia, and Ethiopia.
3. Have students name the continent in which each country is located.

*Alternative Assessment Handbook, Rubric 21: Map Reading

Reading Check
Find Main Ideas
What practices and customs make up culture?

Other factors, such as history and the environment, also affect how cultures develop. For example, historical events changed the language and religion of much of Central and South America. In the 1500s, when the Spanish conquered the region, they introduced their language and Roman Catholic faith. The environment in which we live can also shape culture. For example, the desert environment of Africa's Sahara influences the way people who live there earn a living. Rather than grow crops, they herd animals that have adapted to the harsh environment. As you can see, history and the environment affect how cultures develop.

Culture Groups

Earth is home to thousands of different cultures. People who share similar culture traits are members of the same culture group. Culture groups can be based on a variety of factors, such as age, language, or religion. American teenagers, for example, can be said to form a culture group based on location and age. They share similar tastes in music, clothing, and sports.

Culture Regions When we refer to culture groups, we are speaking of people who share a common culture. At other times, however, we need to refer to the area, or region, where the culture group is found. A **culture region** is an area in which people have many shared culture traits.

Arab Culture Region

Culture regions are based on shared culture traits. Southwest Asia and North Africa make up an Arab culture region based on ethnic heritage, a common language, and religion. Most people in this region are Arab, speak and write Arabic, and practice Islam.



Many people share Arab culture traits. An Omani boy, above, and Palestinian girls, at left, share the same language and religion.

Analyze Visuals
What culture traits do you see in the photos?

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COLLABORATIVE LEARNING

Culture Groups Based on Age

Materials: magazines appealing to different age groups; materials for making a collage

1. Organize the class into four teams. Assign each team an age group: children and teenagers, young adults, older adults, or seniors. Distribute magazines to each team for the age group it was assigned.
2. Have each team discuss the people in the United States in its assigned group and list some culture traits they share. Students may use the magazines to help them determine tastes in food, music, clothing, and so on.

3. Ask each team to construct a collage using magazine ads or articles to illustrate the culture.

4. Have teams display their collages and answer questions about them. Ask each team whether the same age group in other cultures has similar culture traits.

*Alternative Assessment Handbook, Rubric 8: Collages

Teach the Main Idea

The world includes many different culture groups.

Identify What is one country with a single central culture? *Japan*

Make Generalizations About how many culture regions are there in Mexico? *two—northern Mexico (more modern) and southern Mexico (more traditional)*

Make Inferences Why is a shared language such an important part of a culture region? *because it allows people to communicate easily*

ONLINE INTERACTIVE CHARTS

World Religions

Have students explore the charts and answer the associated question.

Interpret Charts Which major religion has the most followers? *Christianity*

ONLINE DOCUMENT-BASED INVESTIGATION

Arab Culture Region

Have students navigate through the carousel and note the different aspects of culture on display. You may wish to use the associated question as a discussion prompt.

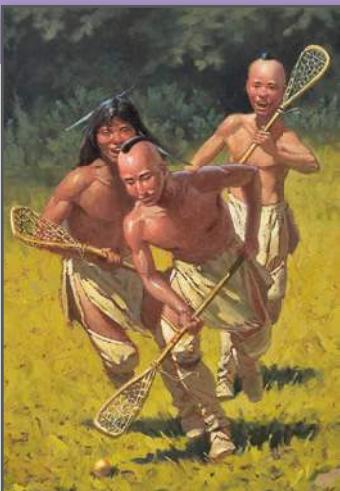
Analyze Sources Study the images and the captions. What connections can you make between the culture traits shown and the region's location? *Possible answer: The children are wearing clothing that protects them from the region's harsh desert climate.*

In print edition, see feature of same title.

Analyze Visuals What culture traits do you see in the photos? *clothing, language, architecture*

READING CHECK

Find Main Ideas What practices and customs make up culture? *language, religion, clothes, music, food, sports, traditions, laws*



Sports are played in cultures around the world. These Lenape teens enjoy a game of lacrosse.

In a specific culture region, people share certain culture traits, such as religious beliefs, language, or lifestyle. One well-known culture region is the Arab world. As you can see in the Arab Culture Region feature, this culture region spreads across Southwest Asia and North Africa. In this region, most people write and speak Arabic and are Muslim. They also share other traits, such as foods, music, styles of clothing, and architecture.

Occasionally, a single culture region dominates an entire country. In Japan, for example, one primary culture dominates the country. Nearly everyone in Japan speaks the same language and follows the same practices. Many Japanese bow to their elders as a sign of respect and remove their shoes when they enter a home.

A single country may also include more than one culture region within its borders. Mexico is one of many countries that is made up of different culture regions. People in northern Mexico and southern Mexico, for example, have different culture traits. The culture of northern Mexico tends to be more modern, while traditional culture remains strong in southern Mexico.

A culture region may also stretch across country borders. As you have already learned, an Arab culture region dominates much of Southwest Asia and North Africa. Another example is the Kurdish culture region, home to the Kurds, a people that live throughout Turkey, Iran, and Iraq.

Cultural Diversity As you just learned, countries may contain several culture regions within their borders. Often, these culture regions are based on ethnic groups. An **ethnic group** is a group of people who share a common culture and ancestry. Members of ethnic groups often share certain culture traits such as language and special foods. Religion can also be a shared culture trait within an ethnic group.

People in different ethnic groups can be part of the same religious group. For example, many people around the world practice the religion of Judaism. However, a Jewish person from Hungary would not be in the same ethnic group as a Jewish person from Ethiopia. These two people may share religious beliefs, but they do not have the same ethnic background. In contrast, people can be in the same ethnic group and have different religious beliefs. For example, there are Christian and Muslim Arabs.

Some countries are home to a variety of ethnic groups. For example, more than 100 different ethnic groups live in the East African country of Tanzania. Countries with many ethnic groups are culturally diverse. A **multicultural society** is a society that includes a variety of cultures in the same area. While multiculturalism creates an interesting mix of ideas, behaviors, and practices, it can also lead to conflict.

In some countries, ethnic groups have been in conflict. In Canada, for example, some French Canadians want to separate from the rest of Canada to preserve their language and culture. In the 1990s, ethnic conflict in the African country of Rwanda led to extreme violence and bloodshed.

COMPARE AND CONTRAST

Ethnic Groups in Different Countries

- Organize the class into pairs.
- Have each pair select two countries (not the United States). Each student will research one of the countries to determine the different ethnic groups living there, population in each group, how people in the group distinguish themselves from others (by religion, language, and so on), how they came there, and how they have cooperated or come into conflict with others.

- When the research is complete, have each pair prepare a chart with two columns that summarizes the information for the two countries. Ask each pair to compare and contrast the ethnic groups in each country.
- Ask volunteers to share their findings with the class. Guide the class in a discussion of these findings.

*Alternative Assessment Handbook, Rubrics 30: Research; and 11: Discussions

Reading Check
Make Inferences
Why might multiculturalism cause conflict?

Academic Vocabulary
innovation: a new idea or way of doing something

Although ethnic groups have clashed in some culturally diverse countries, they have cooperated in others. In the United States, for example, many different ethnic groups live side by side. One major reason for this diversity is that people have migrated to the United States from all over the world. Cities and towns often celebrate their ethnic heritage with festivals and parades, like the Saint Patrick's Day Parade in Boston or Philadelphia's Puerto Rican Festival.

Changes in Culture

You've read books or seen movies set in the time of the Civil War or in the Wild West of the late 1800s. Think about how our culture has changed since then. Clothing, food, music—all have changed drastically. When we study cultural change, we try to find out what factors influence the changes and how those changes spread from place to place.

How Cultures Change Cultures change constantly. Some changes happen rapidly, while others take many years. What causes cultures to change? **Innovation** and contact with other people are two key causes of cultural change.

New ideas often bring about cultural changes. For example, when Alexander Graham Bell invented the telephone, it changed how people communicate with each other. Other innovations, such as motion pictures, changed how people spend their free time. More recently, the creation of the Internet dramatically altered the way people find information, communicate, and shop.

Cultures also change as societies come into contact with each other. For example, when the Spanish arrived in the Americas, they introduced firearms and horses to the region, changing the lifestyle of some Native American groups. At the same time, the Spaniards learned about new foods like potatoes and chocolate. These foods then became an important part of Europeans' diet. The Chinese had a similar influence on Korea and Japan, where they introduced Buddhism and written language.

How Cultural Traits Spread You have probably noticed that a new slang word might spread from teenager to teenager and state to state. In the same way, clothing styles from New York or Paris might become popular all over the world. More serious cultural traits spread as well. Religious beliefs or ideas about government may spread from place to place. The spread of culture traits from one region to another is called **cultural diffusion**.

Cultural diffusion often occurs when individuals move from one place to another. For example, when European immigrants settled in the Americas, they brought their culture along with them. As a result, English, French, Spanish, and Portuguese are all spoken in the Americas. American culture also spread as pioneers moved west, taking with them their form of government, religious beliefs, and customs.

Another factor that leads to cultural diffusion is trade. An example of this developed along the Silk Road of ancient China. The trade route encouraged the exchange of goods and practices between Asia and the

LINK TO MUSIC

Music from Other Cultures

Materials: four or five different selections of music from other cultures, CD player

1. Explain to students that they will be listening to music from other cultures. Ask them to take notes as they listen, such as whether they like or dislike the music, what culture they think it comes from, how it is the same or different from music they listen to, if there are any instruments that they can identify, and so on.

2. Allow everyone to listen carefully and take notes.

*Alternative Assessment Handbook, Rubric 18: Listening

Teach the Main Idea

New ideas and events lead to changes in culture.

Describe How did the Native American culture change after the Spanish conquered the Americas? How did the Spanish culture change? *started to use horses and firearms; started to use new foods such as potatoes and chocolate*

Analyze How could the Internet encourage cultural diffusion? *allows communication quickly between many people and cultures*

Make Inferences Why have immigrant groups usually adopted the language of their new home? Why have some continued to speak their native language? *to make communication easier and fit in with the culture; to maintain some of their native culture*

More About . . .

The Internet The Internet was first developed and used by the U.S. military in the 1970s. Today, millions of people worldwide use it. Contact through the Internet may become an important way that cultures change.

ONLINE ANALYZE VIDEOS

Alexander Graham Bell and the Astonishing Telephone



Have students watch the video individually or as a class. You may wish to use the associated question as a discussion prompt.

Analyze Videos What inspired Alexander Graham Bell to invent the telephone? *He was inspired by his work with deaf people.*



READING CHECK

Make Inferences Why might multiculturalism cause conflict? *Some groups want to preserve their own culture or force others to abide by their ways.*

Teach the Main Idea

The features common to all cultures are called universals.

Explain Why do cultural universals exist? *They help societies meet basic needs.*

Summarize What are three important cultural universals? *social institutions, creative expressions, and technology*

More About . . .

Language Language experts believe there are about 6,000 different languages spoken in the world today. However, they think the number will drop significantly by the end of the 21st century, possibly by as much as 90 percent.

Recent Scholarship *National Geographic* is an excellent source for articles and essays on human migration, cultural diffusion, and the maintaining of cultural identity within another culture group. Search the National Geographic Society website to find links that can be used for related classroom discussions or activities.

Cultural Universals In the 1940s anthropologist George Murdock examined hundreds of different cultures in an attempt to determine the general traits common to all cultures. He used his research to compile a list of more than 65 cultural universals. Among his list were the cultural universals discussed in this section, as well as cultural features such as body adornment, cooking, feasting, forms of greeting, funeral ceremonies, gift giving, housing, language, medicine, folklore and myths, sports, and medicine.

ONLINE INTERACTIVE MAPS

Cultural Diffusion of Baseball

Have students explore the map using the interactive features and answer the associated question.

Location Where did baseball begin, and to what parts of the world did it eventually spread? *Baseball began in New York and spread to Central and South America and Asia.*

READING CHECK

Find Main Ideas How do cultures change over time? *through the development of new ideas and contact with other societies*

Middle East. Also, the Phoenicians were an early trading civilization that moved Middle Eastern culture throughout the Mediterranean region. They are often called the “carriers of civilization” because of their strong influence on other cultures.

Conflict can also be a reason for cultural diffusion. Recently, millions of Syrians fled their country in a mass migration to escape civil war. Some refugees moved to neighboring countries in the Middle East. Other Syrian people traveled great distances to places such as Europe and North America. This migration contributed to the diversity of each region.

Cultural diffusion also takes place as new ideas spread from place to place. As you can see on the map, the game of baseball first began in New York, then spread throughout the United States. As more and more people learned the game, it spread even faster and farther. Baseball eventually spread to other world societies. Wearing blue jeans became part of our culture in a similar way. Blue jeans originated in the American West in the mid-1800s. They gradually became popular all over the country and the world.

What Do All Cultures Have in Common?

You may be wondering how cultures can be so different when all people have the same basic needs. All people need food, clothing, and shelter to survive. Geographers and other social scientists believe that some needs

Focus on Culture

Cultural Diffusion of Baseball

Like many other ideas and customs, baseball has spread around the world through the process of cultural diffusion. Since its beginnings in New York in the 1800s, baseball has spread throughout the United States, into Central and South America, and to Asia.



Analyze Visuals
Where did baseball begin, and to what parts of the world did it eventually spread?

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ADVANCED/GIFTED

Cultural Diffusion of Sports

- Ask students to research the diffusion of a sport, such as soccer, basketball, or tennis, or more specialized sports such as curling, sumo wrestling, or bocce.
- Once students have completed their research, have them write a paragraph that describes the cultural diffusion of the sport.
- Then have students create a map with arrows that show the paths their chosen sport traveled.
- Finally, have students present their findings to the class and act out or role-play their chosen sport.

*Alternative Assessment Handbook, Rubrics 19: Magazines; and 23: Newspapers

SPECIAL NEEDS STUDENTS

Sports Around the World

- Ask students to look in print or online newspapers and magazines for photos of sports played in other countries.
- Have students choose one photo. Ask them to identify the sport and country in which it is played.
- Ask students to describe how the picture and media coverage of the sport might encourage cultural diffusion. Students can give their answers in either written or oral form.

*Alternative Assessment Handbook, Rubrics 19: Magazines; and 23: Newspapers

Reading Check**Find Main Ideas**

What can geographers learn from cultural universals?

are so basic that societies everywhere have developed certain features to meet them. These features, common to all cultures, are called **cultural universals**. In this section, you will learn about three important cultural universals: social institutions, creative expressions, and technology.

Basic Social Institutions

Societies, like people, have basic needs that must be met for a group to survive. **Social institutions** are organized patterns of belief and behavior that focus on meeting these needs. The most basic social institutions are family, education, religion, government, and economy. The core principles and ideals of a society are known as cultural values. They help to shape the group and all of its social institutions. Cultural values and social institutions exist in all societies. However, their specific characteristics and customs, or ways of doing things, vary from culture to culture.

Family Family is the most basic social institution. In all societies, its purpose is the same. The family ensures that children are cared for until old enough to fend for themselves. Families provide emotional and physical support. They also teach the accepted values, traditions, and customs of a culture.

The traditions of a culture hold great significance and get passed along from one generation to the next. One custom in Greece is that people celebrate a “name day” for the saint that bears their name instead of their own birthday. Another tradition is the Battle of Oranges in Northern Italy. Groups of people throw oranges to reenact a famous battle.

Cultural values are also important and often have a long history within a specific culture. For example, the foundation of African cultural values is based on the past and present. This is one reason why elders are so respected there. The elders are to always be acknowledged and served their meals first.

The size of a family can vary from one culture to another. Family members may live together under one roof or they might inhabit an entire village. For example, India’s joint family system includes grandparents, parents, uncles, aunts, and all of their children living in one household.

Government To keep order and resolve conflicts, people need a government. A government is a system of leaders and laws that help people live safely together in their community or country. Laws help people live safely with each other because they define standards, protect property and people’s rights, and help settle disagreements. Laws can apply to any of a society’s social institutions. For example, a country may impose a minimum wage law, which affects the country’s economy. Perhaps a government creates new laws for its nation’s education system. This may impact what students learn in school.

Economy To support its people, a society must have an economy, or a system of using resources to meet needs. People must be able to make, buy, sell, and trade goods and services to get what they need and want. They must consider the questions of what to produce, for whom to produce, and how to produce. Prosperous nations have strong economic principles in place to guide their business decisions and actions.

ENGLISH LANGUAGE LEARNERS

Socialization

- Explain what *socialization* means (how people learn the rules of society). Discuss how people become socialized—for example, through family members, neighbors, their community, the workplace, and schools.
- Discuss how socialization differs, depending on the time and place. As an example, you may want to compare and contrast urban schools and rural schools in the United States.

- Direct students to pair up and research school experiences from two different time periods and places (such as ancient Greece and colonial America). Have them determine how they were alike and how they differed.
- Guide students in finding reliable information from library and Internet resources and in taking notes.
- Have students use standard English to present their findings to the class. Then discuss how students’ school experiences are similar to and different from those researched.

*Alternative Assessment Handbook, Rubrics 11: Discussions; and 24: Oral Presentations

Teach the Main Idea

All societies have social institutions that help their groups survive.

Define What are social institutions? *organized patterns of belief and behavior that focus on meeting basic needs*

Make Inferences Why do you think family is the most basic social institution? *Possible answer: because families are responsible for the basic care of children and for teaching them accepted norms and behaviors*

ONLINE INTERACTIVE VISUALS

Process Steps: Village Society

Have students examine the steps of village society. You may wish to use the associated question as a discussion prompt.

Analyze Visuals What evidence shows the importance of elders in an African village society? *The images show elders are village chiefs and part of a special council.*

Families

Extended Families

Village Chiefs

Council of Elders

READING CHECK

Find Main Ideas What can geographers learn from cultural universals? *Geographers study cultural universals to understand similarities among the world’s people.*

Teach the Main Idea

Every culture expresses itself creatively in a variety of ways.

Recall What are the main types of creative expressions? *performing arts, visual arts, literary arts*

Draw Conclusions Why do creative expressions vary across cultures? *They vary because they are influenced by the availability of natural resources, differences in cultural heritage, and individual choices.*

Explain Why are cultural expressions that have universal themes significant? *They contain messages about life or human nature that are meaningful to all people, across time, and in all places.*

More About . . .

The Golden Pagoda Myanmar's magnificent Schwedagon Pagoda, or the Golden Pagoda, sits atop a hill overlooking the city of Yangon. Believed to be about 2,500 years old, the pagoda is the most sacred Buddhist site in Myanmar. The temple is covered with hundreds of gold plates and encrusted with thousands of diamonds that sparkle in the sun's light. According to legend, the pagoda contains eight of Buddha's hairs.

ONLINE INTERACTIVE VISUALS

Image Compare: Education

Have students explore and compare the images using the interactive slider. You may wish to use the associated question as a discussion prompt.

Analyze Visuals What similarities and differences do you detect between the two classroom environments? Which are different? *similarities—boys and girls learn together, students sit together at desks, students learn in a classroom setting; differences—United States: no uniforms; Peru: blue and black uniforms*

READING CHECK

Summarize What are the main societal institutions? *family, education, religion, government, and economy*

Education

In the United States and in Peru, schools teach knowledge, skills, and cultural norms to prepare students for adult roles.



Analyze Visuals

What similarities and differences do you detect between the two classroom environments?

Education Societies rely on education to pass on knowledge to young people. For example, schools across the world teach reading, writing, math, and technical skills that prepare students to take on adult roles. Schools also teach the norms and values that sustain, or support, a society. For instance, one goal of U.S. public schools is to develop informed citizens who contribute to the good of their communities.

Religion The world's religions are incredibly diverse. Still, in all societies, religion helps explain the meanings of life and death and the difference between good and bad behavior. Over time, religion is passed down and supported by traditional practices, literature, sacred texts and stories, and sacred places. All of this makes religion a powerful force. It is often the foundation of a culture's philosophical beliefs and attitudes. Moreover, in all world regions, it has inspired and sustained itself through great works of devotion, including art and monumental architecture.

Creative Expressions

All people are creative. Everyone has the ability to imagine, think, and create. Not surprisingly, all societies express themselves creatively, too. The main types of creative expression are:

- **Performing Arts**—art forms that combine sound and movement for an audience, such as music, theater, and dance
- **Visual Arts**—creative expressions that have both a visual and material form, such as painting, jewelry, sculpture, textiles, and architecture
- **Literary Arts**—art forms rooted in words and language, such as literature, folktales, and stories

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UNDERSTAND SIMILARITIES AND DIFFERENCES

Education as a Cultural Universal

1. Direct students' attention to the photos on this page.
2. Work with students to identify similarities in the photos that help explain education as a cultural universal. *Schools help prepare young people for adulthood.*
3. Then, help students identify cultural differences shown in the photos. *U.S. students are saying the Pledge of Allegiance. Peruvian students are wearing uniforms.*

4. Ask students to imagine that their family has moved to Peru. Have them write a letter to a student in the United States describing how their daily lives as students have changed since moving to Peru. Challenge students to use the term *cultural universal* in their paragraphs.

*Alternative Assessment Handbook, Rubric 25: Personal Letters

Monumental Architecture

Religion inspires creative expressions, including monumental architecture such as France's Notre Dame Cathedral and Shwedagon Pagoda, a Buddhist temple in Myanmar (Burma).



Analyze Visuals

How do examples of monumental architecture express the power of religion?

Creative Forces As you explore creative expressions from all world regions, note how they are influenced by the availability of natural materials and resources. Look, too, for how creative expressions reflect a specific **heritage**, or the wealth of cultural elements that has been passed down over generations.

Creative expressions also express individual choices. People use artistic forms to express individual as well as cultural ideas about what is pleasing, proper, and beautiful. They also use them to address contemporary issues such as politics, war, and social inequality. This is because the arts can inspire us. Creative forms communicate ideas and emotions that stir people to action.

Universal Themes Some creative expressions communicate universal themes. A **universal theme** is a message about life or human nature that is meaningful across time and in all places. Because they express basic human truths, universal themes transcend, or move beyond, the boundaries of a particular society. They speak to people everywhere.

Masterpieces of art have qualities that are meaningful and timeless. Examples include Egyptian hieroglyphics and the sculptures of ancient Greece. The woodblock prints made by the Japanese painter Katsushika Hokusai are also an example of this type of art. They express a love of nature's beauty, simplicity, and power.

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ONLINE INTERACTIVE VISUALS

Carousel: Monumental Architecture

Have students navigate through the carousel and note the different types of architecture on display. You may wish to use the associated question as a discussion prompt.

Analyze Visuals How do examples of monumental architecture express the power of religion? *through visual art*

Monumental Architecture



Slender minarets and cascading domes are features of the Blue Mosque in Istanbul, Turkey.

LINK TO MUSIC

Contemporary Issues

- Provide students with a copy of the lyrics "We Shall Overcome," and play for them a recording of the song. Explain that it was sung during the American civil rights movement.
- Have students listen carefully to or read all the verses. Engage students in a discussion of how the song addressed a contemporary issue of the time, racial inequality.

- Invite students to identify a contemporary issue affecting the world today. Have students write two or three new verses to "We Shall Overcome," expressing their points of view about how people should live or work together to overcome the issues.

*Alternative Assessment Handbook, Rubric 26:
Poems and Songs

Teach the Main Idea

All societies use technology to help shape and control the environment.

Contrast What is the difference between technology and science? *Technology includes the use of knowledge, tools, and skills to solve problems. Science is a way of understanding the world through observation and the testing of ideas.*

Recall Why do the Amish in the United States refuse to use cars? *They reject technology they believe will undermine their traditions.*

Evaluate Of Pasteur's and Edison's work, whose innovations do you think are more important to your daily life? *Possible answer: Edison's because I rely on electricity every day*

More About . . .

Connect to Technology: Internet Access About 60 percent of the world's population does not have access to the Internet because they cannot afford a computer or Internet service. Some nonprofit organizations, however, are helping to bridge the "digital divide" that exists between developed nations and developing nations. For example, one British organization works to repair used computers that are then donated to schools in developing nations.



ONLINE INTERACTIVE VISUALS

Image Compare: Universal Themes in Art

Have students explore and compare the images using the interactive slider. You may wish to use the associated question as a discussion prompt.

Analyze Visuals How do the paintings express the idea of nature's awesome power? *Possible answer: Both paintings show the strength of enormous ocean waves overpowering people.*

Universal Themes in Art

Nature's awesome power is a universal theme in these paintings of boats at sea.

Japanese artist Katsushika Hokusai created *The Great Wave*, his most famous work, when he was about 70 years old. The wood-block print was part of a series called *Thirty-six Views of Mount Fuji*. It shows a massive wave about to crash down on three fishing boats with Mount Fuji in the background.



Reading Check

Describe
What are the main types of cultural expressions?

Other art forms also gain worldwide appreciation. For example, literature such as *The Lord of the Rings* contains a universal theme of a hero's search for truth, goodness, and honor. Blues music is another example. Derived from African American work songs and spirituals in the American South, blues songs express feelings of sadness and struggle in the face of great challenges.

Science and Technology

All people use technology to shape and control their environments, and they use science to try and understand it. **Technology** refers to the use of knowledge, tools, and skills to solve problems. Science is a way of understanding the world through observation and the testing of ideas.

Factors Shaping Technology Use Historically, the type of technology a culture developed has been strongly tied to environmental factors. Not only were tools and technology made from local resources, they were also designed to solve specific problems posed by nature. For example, farmers might build dams to prevent rivers from flooding and destroying their crops.

Other factors such as belief systems, political decisions, and economic factors can influence technology use, too. Some religious groups, like the Amish people of the United States, selectively use technology. They readily use gas and horse-drawn buggies. However, they reject technology they think will undermine their traditions, including cars and computers.

Government decisions also affect technology use. North Korea, for example, restricts Internet use. To use the Internet, a North Korean must have special permission and may use it for government purposes only. Worldwide, however, the primary barrier between people and technology is economic. New technologies are simply too expensive for many of the world's people to access them.

Impact of Technology Throughout time, advances in science and technology have made life easier. Some discoveries even changed the world.

Consider, for example, the work of French scientist Louis Pasteur. His work revolutionized health and medicine. In 1870 Pasteur discovered that germs caused infections. To prevent the spread of disease, he urged people to wash their hands. He also developed vaccines to prevent deadly diseases and a process for removing bacteria from food. Today, most milk, cheese, and juice on our grocery shelves have been sterilized, or made germ-free, through pasteurization.

Inventors, too, change the world. For example, in 1879, Thomas Edison developed an affordable and practical light bulb. At the time, the invention caused a sensation. People no longer had to burn candles and oil lamps for light at night. Over time, electricity transformed daily life and work for many of the world's people.

Nature's awesome power is a universal theme in the painting of a great wave created by Japanese artist Katsushika Hokusai.



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ENGLISH LANGUAGE LEARNERS

Technology Timelines

Pair students with more proficient writers. Tell partners they will create illustrated timelines of world-changing scientific discoveries or technological innovations. Assign each pair a topic such as medicine, energy, transportation, or communications. Allow students enough time to research, illustrate, and assemble their timelines. Finally, have each pair present its timeline, explaining the impact of each entry.

*Alternative Assessment Handbook, Rubric

36: Timelines

READING CHECK

Describe What are the main types of cultural expressions? *performing arts, visual arts, and literary arts*

In fact, Thomas Edison had a friend in the auto industry who would greatly benefit from the new technology. In 1913 automaker Henry Ford launched the world's first moving assembly line. This new process allowed workers to decrease construction time on a single vehicle from 12 hours to roughly 90 minutes.

The introduction of computers into the workplace has demanded new skill sets from employees. Consider the work of an auto mechanic from 50 years ago and today. Every car manufactured today contains at least one computer system. Auto mechanics must understand these systems in order to effectively work on a vehicle.

All of these technologies greatly increased the rate of production. People were able to work faster and more efficiently, which resulted in a larger supply of available goods.

Today, scientists and inventors continue to identify and solve problems. They often work in groups to make discoveries or invent new devices or products that will benefit future generations. This involves careful thinking about the future and making predictions about the social, political, economic, cultural, and environmental impact of their work.

Summary and Preview In this lesson you learned about the role that culture plays in our lives, how our cultures change over time and move around the world, and the features that make cultures similar. Next, you will learn about human populations and how we keep track of Earth's changing population.

Reading Check
Form Generalizations
What are the basic purposes of technology and science?

Lesson 1 Assessment

Review Ideas, Terms, and Places

1. a. **Define** What is culture?
- b. **Analyze** What influences the development of culture?
- c. **Elaborate** How might the world be different if we all shared the same culture?
2. a. **Identify** What are the different types of culture regions?
- b. **Analyze** How does cultural diversity affect societies?
3. a. **Describe** Identify an example of a cultural trait that has spread. How did that culture trait spread?
- b. **Identify** Which factors influence cultural change?
- c. **Evaluate** Do you think that cultural diffusion has a positive or a negative effect? Explain your answer.
4. a. **Identify and Explain** What are five basic social institutions? What purposes do they serve?
- b. **Analyze** What efforts and activities are most important for a religious institution to last over time? Explain.
5. a. **Describe** What forces influence cultural expressions?

- b. **Identify** List and explain examples of art, music, and literature with universal themes.
6. a. **Explain** How can factors related to belief systems, government, and economics affect technology use?
- b. **Make Inferences** How might a resource such as river water affect how farmers use technology?
- c. **Explain** Give an example of a scientific discovery and an example of a technological innovation that have changed the world. Discuss the role of scientists and inventors in making the discovery and innovation.

Critical Thinking

7. **Find Main Ideas** Using your notes and a chart like the one here, explain the main idea of each aspect of culture in your own words.

Culture Traits	Culture Groups	Cultural Change

The Human World 105

BIOGRAPHY

Thomas Edison

Have students read the biography of Thomas Alva Edison, one of the most prolific inventors in American history.

 **ONLINE ANALYZE VIDEOS**

Henry Ford's Motor Company



Have students watch the video individually or as a class. You may wish to use the associated question as a discussion prompt.

Analyze Videos How did Henry Ford revolutionize the automobile industry? *Possible answer: He was able to mass-produce cars and make them affordable enough for almost any American to purchase.*

READING CHECK

Form Generalizations What are the basic purposes of technology and science? *Technology is used to shape and control our environment. Science is used to try to understand our environment.*

government, and economy; help societies meet their basic needs

- b. **Analyze** What efforts and activities are most important for a religious institution to last over time? Explain. *traditional practices, literature, sacred texts, stories, and sacred places; These shape beliefs.*
5. a. **Describe** What forces influence cultural expressions? *natural resources, heritage, individual expressions, and contemporary issues*
- b. **Identify** List and explain examples of art, music, and literature with universal themes. *Students' lists will vary but should show an understanding of universal themes.*
6. a. **Explain** How can factors related to belief systems, government, and economics affect technology use? *Answers will vary, but students should note all can affect technology use.*
- b. **Make Inferences** How might a resource such as river water affect how farmers use technology? *Farmers might build dams to prevent rivers from flooding and destroying their crops.*
- c. **Explain** Give an example of a scientific discovery and an example of a technological innovation that have changed the world. Discuss the role of scientists and inventors in making the discovery and innovation. *Answers will vary, but students should accurately describe the impact of a discovery, an innovation, a scientist, and an inventor.*

Print Assessment

Review Ideas, Terms, and People

1. a. **Define** What is culture? *the set of beliefs, goals, and practices that a group of people share*
- b. **Analyze** What influences the development of culture? *traditions and laws passed down, immigration, historical events, the local environment*
- c. **Elaborate** How might the world be different if we all shared the same culture? *Possible answers: fewer conflicts, uniform customs, foods, religion; fewer new ideas*
2. a. **Identify** What are the different types of culture regions? *regions in which people share a common religion, language, ethnic background, and lifestyle, such as the Arab culture region*

- b. **Analyze** How does cultural diversity affect societies? *creates a variety of ideas and practices, may cause conflict*
3. a. **Describe** Identify an example of a culture trait that has spread. How did that culture trait spread? *baseball; it became popular in Asia and Central and South America*
- b. **Identify** Which factors influence cultural change? *innovation and contact with other people*
- c. **Evaluate** Do you think that cultural diffusion has a positive or a negative effect? Explain your answer. *Possible answers: positive, because it provides new ideas and practices; negative, because it can cause a culture to lose its uniqueness*
4. a. **Identify and Explain** What are five basic social institutions? What purposes do they serve? *family, education, religion,*

Print Assessment (continued)

Critical Thinking

7. **Find Main Ideas** Using your notes and a chart, explain the main idea of each aspect of culture in your own words. *Students' answers should show an understanding of the topics covered in Lesson 1.*

► Online Assessment

- Which cultural features do nations throughout the world share?
 - People throughout the world grow crops and raise the same animals.
 - People throughout the world make similar meals and use utensils to eat.
 - People throughout the world have some form of government and create artwork.
 - People throughout the world worship the same religion and speak the same language.

Alternate Question Select the answer choice from the drop-down list to complete the sentence correctly.

People throughout the world share similar cultural features, such as *creating artwork* ▾.

- Which of the following characterizes the culture region of Southwest Asia and North Africa?
 - People speak a common language and follow Islam as their religion.
 - People celebrate their ethnic heritage in festivals like Saint Patrick's Day.
 - People mark the "beginning of the year" in the fall during Rosh Hashanah.
 - People bow to their elders as a sign of respect and remove their shoes when they enter a home.

Alternate Question Select the answer choice from the drop-down list to complete the sentence correctly.

In the culture region of Southwest Asia and North Africa, the majority of the people speak a common language and follow *Islam* ▾ as their religion.

- How did the Spanish change some cultures in the Americas?
 - by introducing religion and written language
 - by introducing firearms and horses to the region
 - by learning about new foods like chocolate and potatoes
 - by spreading games like baseball and lacrosse throughout the region

Alternate Question Select the answer choice from the drop-down list to complete the sentence correctly.

When the Spanish arrived in the Americas, they introduced firearms and *horses* ▾ to the New World and changed the lifestyle of some Native American groups.

- Which of the following is a basic need that people must have in order to survive?
 - food
 - technology
 - social institutions
 - creative expressions

Alternate Question Select the answer choice from the drop-down list to complete the sentence correctly.

All people throughout the world have the same needs in order to survive, such as *food* ▾, clothing, and shelter.

- Which of the following accurately describes social institutions?
 - The most basic social institution is the government.
 - Social institutions include family, religion, and government.
 - The ways social institutions are practiced are the same from culture to culture.
 - Social institutions like economy and education are important only to wealthy members of society.

Alternate Question Select the answer choice from the drop-down list to complete the sentence correctly.

A society meets the needs required for its people to survive through the social institutions of *family* ▾, education, religion, government, and economy.

- How are performing arts used to express cultural themes?
 - through stories and folktales
 - through painting, sculpture, and architecture
 - by using expressive language through literature
 - by combining sounds and movement through dance, music, and theater

Alternate Question Select the answer choice from the drop-down list to complete the sentence correctly.

Performing arts express cultural themes by combining sounds and movement through music, theater, and *dance* ▾.

- Which of the following explains how technology can improve people's lives?
 - North Korea restricting Internet usage
 - farmers building dams to protect their crops
 - Louis Pasteur urging people to wash their hands
 - the Amish refusing to use computers for religious reasons

Alternate Question Select the answer choice from the drop-down list to complete the sentence correctly.

When farmers build dams to control rivers and protect their crops, they are using *technology* ▾ to make their lives better and solve problems created by nature.

- Compare and Contrast** How do the ways the Japanese and Americans educate their children demonstrate differences in their cultures' traits?

Japanese public schools begin teaching their students in the spring, while American schools start in the late summer. Many American public schools do not require their students to wear school uniforms, while Japanese schools do. These characteristics make Japanese and American schools different and help make their cultures unique.

- Draw Conclusions** How are ethnic groups and religious groups related? Explain your answer using an example.

An ethnic group is made up of people who share a common culture and ancestry. A religious group is made up of people who follow the same religion. People from different ethnic groups can share the same religion, such as a Hungarian Jew and an Ethiopian Jew.

10. **Evaluate** How does foreign trade affect the cultures of regions? Give one example.

Foreign trade introduces ideas, goods, and practices into new regions. Trade creates cultural diffusion by spreading ideas from one culture to another, and cultures can be changed as a result. For example, the seafaring Phoenicians spread their culture throughout the Mediterranean and influenced other people who adopted their written language, ways of manufacturing goods, and advances in navigation.

11. **Analyze Information** Why do geographers study features common to world cultures?

Geographers study features common to many cultures throughout the world. These cultural universals include social institutions, technology, and creative expression. By studying these cultural universals, geographers can understand what make cultures similar and how they are different.

12. **Elaborate** Why do people form governments? Explain two reasons.

People form governments to ensure an orderly society and to settle disputes that arise among people. To keep order, people have created laws for people to obey and have named leaders to make and carry out those laws. Laws help settle disputes by protecting people and their property by setting standards that people are expected to obey.

13. **Make Judgments** How do artistic performances that address warfare, politics, and social inequalities often affect their audiences?

The intent of performances using creative expressions is to inspire others. Therefore, performances that address issues of politics, warfare, and social inequalities often create strong emotions and may cause people to act to address these issues.

14. **Compare and Contrast** How are science and technology related? Give one example.

Science is the pursuit of understanding the world through observation and the testing of theories, while technology is the use of inventions, knowledge, and skills to solve problems. Louis Pasteur used science to understand that germs cause disease, and this encouraged the development of vaccines to prevent diseases from infecting people and the process of pasteurization that removes bacteria from food

ADDITIONAL INSTRUCTIONAL MATERIALS

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More About . . .

Arab Culture There were two attempts to unite Arab countries in the 20th century. The first resulted in the United Arab Republic (1958–1961), and the second in the Federation of Arab Republics (1972–1977). The purpose of these attempts was to unite people who shared the Arab culture into a single country or union of countries. The nations were unable to agree on many things, however, and they remain separate today.

Anwar al-Sadat (1918–1981) Anwar al-Sadat was elected president of Egypt in 1970. After involvement in several wars in the region, Sadat worked toward peace between the Arab nation of Egypt and the Jewish nation of Israel. He and Israeli leader Menachem Begin were awarded the Nobel Peace Prize in 1978 for leading peace negotiations. Sadat was assassinated by extremists in his own military in 1981.

continued from page 99

More About . . .

Connect to Today: Corporate Culture Many students and job seekers assume that one company is just like another. Yet corporate culture—a company's unique set of values, rules, and way of doing business—varies greatly. Corporate culture can affect how many hours employees are expected to work, whether work relationships are formal or casual, and even how employees are expected to dress. When considering careers, experts often advise people to consider how well they will "fit in" with a company's culture—which can be just as important a factor to consider as salary, benefits, and career growth.



Population

- Population Density

Visuals

Videos

LESSON 2

Big Idea

Population studies are an important part of geography.

- Population Explosion
- 7.5 Billion and Growing

Extend and Enrich

Maps,
Graphs, and
Charts

- Graph: Forecast for World Population
- Graph: Irish Migration to the United States, 1845–1855
- Graph: World Population Growth, 1500–2000

Sources

- Document-Based Investigation: World Population Density

Assessment

- Key Terms Review
- Reading Check
- Graphic Organizer Activity
- Lesson Assessment

► Online Lesson 2 Enrichment Activities

Population Explosion

Graph Students create a graph to record world population growth rates per minute, per day, and per week.

7.5 Billion and Growing

Article Students speculate on the ways population and environmental change will impact the world by the year 2050 and write a futuristic newscast based on their visions.

Teach the Big Idea

1. Whole Class Open/Introduction

If **YOU** lived there . . .

What do you like and dislike about living in a large city?

Review the scenario with students, and lead a class discussion around responses to the question. You may wish to review the following points to frame your discussion.

Consider reasons you LIKE living in a city:

- There is always something to do.
- There are several interesting neighborhoods.
- There are a variety of cultures.

Consider reasons you DISLIKE living in a city:

- The traffic is heavy.
- The crime rate is high.
- There is a lot of pollution.

2. Direct Teach Introduce the Big Idea: *Population studies are an important part of geography.* Ask students if they know what the United States population is. (*about 320 million*) Then ask students to guess the population of the United States in 1960. (*about 180 million*) Have students name some ways the country is different now than in 1960 simply because of the change in population.

3. Practice/Assess/Inquire Divide the room into at least three “countries.” Assign students randomly to each, creating unequal groups. Ask each group to name its “country,” count its citizens for this year, and determine its density according to a random number of square miles you provide.

Then tell students it is ten years later, and direct some students to “migrate” to different countries. Give students a reason for their migration, such as famine, flood, war, and so on. Ask each group to recalculate its density after the migration is done.

4. Explore (Collaborative Exploration) Have each group post its density on the board for each year. Ask students how life in their country might have changed as the population changed.

5. Whole Group Close/Reflect Ask students to create a chart or bar graph that shows the population density for each country for each year.

*Alternative Assessment Handbook, Rubric 7: Charts

Population

If **YOU** lived there . . .

You live in Mexico City, one of the largest and most crowded cities in the world. You realize just how crowded it is whenever you ride the subway at rush hour! You love the excitement of living in a big city. There is always something interesting to do. At the same time, the city has a lot of crime. Heavy traffic pollutes the air.

What do you like and dislike about living in a large city?

Population Patterns

How many people live in your community? Do you live in a small town, a huge city, or somewhere in between? Your community's **population**, or the total number of people in a given area, determines a great deal about the place in which you live. Population influences the variety of businesses, the types of transportation, and the number of schools in your community.

Because population has a huge impact on our lives, it is an important part of geography. Geographers who study human populations are particularly interested in patterns that emerge over time. They study such information as how many people live in an area, why people live where they do, and how populations change. Population patterns like these can tell us much about our world.

Population Density Some places on Earth are crowded with people. Others are almost empty. One statistic geographers use to examine populations is **population density**, a measure of the number of people living in an area. Population density is expressed as persons per square mile or square kilometer.

Population density provides us with important information about a place. The more people per square mile in a region, the more crowded, or dense, it is. Japan, for example, has a population density of about 897 people per square mile (around 347 per square km). That is a high population density. In many parts of Japan, people are crowded together in large cities and space is very limited. In contrast, Australia has a very low

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ONLINE GRAPHIC ORGANIZER

Population

As students read the lesson, have them use the graphic organizer to take notes. Students can review their graphic organizer notes at the end of the lesson to answer the following question:

Summarize What do geographers learn by studying population? *Geographers learn how many people live in areas, where they live and why, and how populations change.*

ONLINE LESSON FLIP CARDS

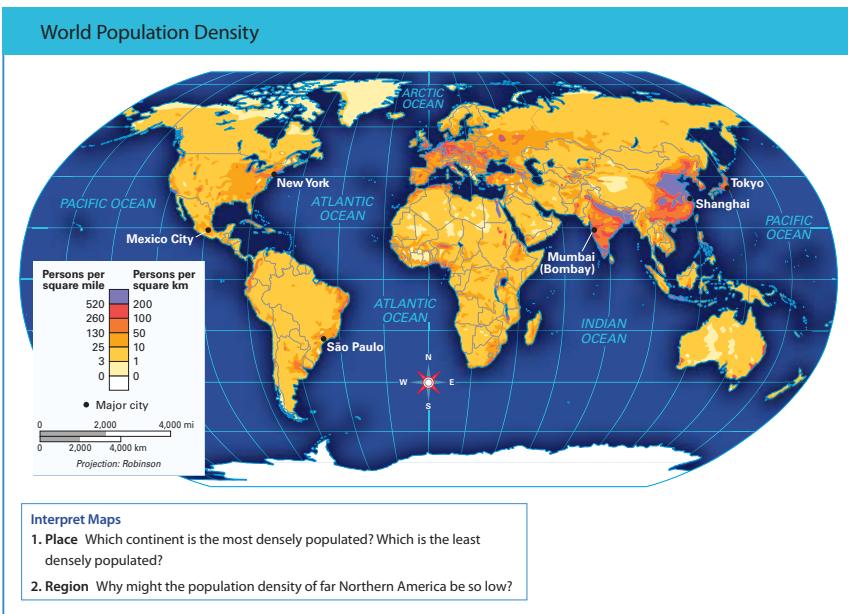
Review Key Terms and Places

Students can use the flip cards in the Lesson Review at any time to review the lesson's key terms and places: **population, population density, birthrate, migration.**

ONLINE DOCUMENT-BASED INVESTIGATION

The Human World

World Population Density is the second of four document-based investigations that students will analyze in The Human World. Students explore the map using the interactive features to discover how world population is distributed.



population density. Only around 8 people per square mile (about 3 per square km) live there. Australia has many wide-open spaces with very few people.

How do you think population density affects life in a particular place? In places with high population densities, the land is often expensive, roads are crowded, and buildings tend to be taller. On the other hand, places with low population densities tend to have more open spaces, less traffic, and more available land.

Population density also affects the economic development of a region. These effects can be positive or negative depending on the circumstances. Areas with higher population densities and abundant resources have the potential to create more job opportunities, which can add value to the region. In contrast, a larger population density in regions with limited resources can present many challenges. It may be difficult to provide goods and services to every person when resources are in short supply.

Where People Live Can you tell where most of the world's people live by examining the world population density map above? The reds and purples on the map indicate areas of very high population density, while the light

The Human World 107

STRUGGLING READERS

Population Density

- To illustrate and to help students understand population density, draw several equal-sized squares on the board and label each "1 square mile." Give each square a name (possibly from local area towns and cities). Ask students to do the same on their own paper.
- On the board, "populate" each square with dots representing people. Ask students to do the same on their own papers, using different numbers of dots in each square. Assign a population number to each dot; for example, 1 dot could represent 10, 100, or 1,000 people.

- Define population density as the number of people per square mile. Ask students to display their drawings and list or tell the population density in each square.
- Discuss how life might be different for people living in dense and less-dense squares, including available land for housing, farming, industrial sites, travel, and so on.

*Alternative Assessment Handbook, Rubric 11: Discussions

Teach the Main Idea

The study of population patterns helps geographers learn about the world.

Recall How is population density usually expressed?
as persons per square mile or square kilometer

Contrast How does the population density and the space available differ in Japan and Australia?
Japan has a high population density and little space available; Australia has a low population density and has much open space.

Make Inferences Why do you think land is often more expensive in areas with high population densities?
because less land is available

More About . . .

Population Clocks The U.S. Census Bureau and other groups try to estimate how many people are living in the world at any time. They have constructed "population clocks" that use information about population trends to estimate world population every few minutes. The Census Bureau clock can be viewed at <http://www.census.gov/ipc/www/popclockworld.html>.

The formulas groups use to estimate population differ. For example, the U.S. Census Bureau estimated the world population at 6 billion people on June 1, 1999, while the United Nations celebrated the "Day of Six Billion" on October 12, 1999.

ONLINE DOCUMENT-BASED INVESTIGATION

World Population Density

Have students explore the map using the interactive features and answer the associated questions.

Analyze Sources Study the map. What patterns can you identify? *Possible answer: Many areas with the highest population densities are along coastlines. Lowest population densities are found in areas that have challenging environments.*

In print edition, see map of same title.

Place Which continent is the most densely populated? Which is the least densely populated?
Europe; Antarctica

Region Why might the population density of far Northern America be so low?
Much of the northern part of the continent has a cold climate and harsh environment.

DOCUMENT-BASED INVESTIGATION MAP SOURCE

World Population Density

An important part of geographers' work is the study of human populations. Many geographers are interested in where people live, how many people live there, and what effects those people have on resources and the environment.



ONLINE INTERACTIVE VISUALS

Image Compare: Population Density

Have students explore and compare the images using the interactive slider. You may wish to use the associated question as a discussion prompt.

Analyze Visuals What does the photo of Tokyo tell you about its high population density? *Possible answer: They build tall structures to accommodate a lack of space.*

Population Density

Population density statistics help geographers learn about the lives of people in different parts of the world.

High Population Density

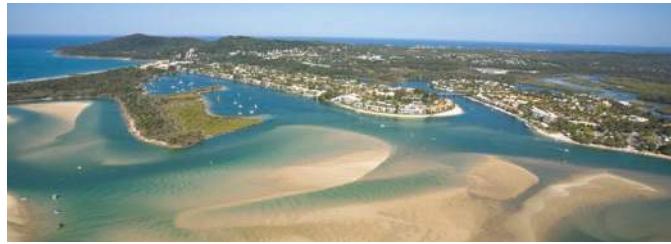
Many parts of Japan have a high population density. Space is extremely limited in the city of Tokyo.



Many parts of Japan have a high population density. Space is extremely limited in the city of Tokyo.



Australia has a very low population density. There is plenty of space for people living along the Noosa River.



READING CHECK

Form Generalizations What types of information can population density provide? *how crowded a place is, possibly the price and availability of land, the type of buildings, traffic*

Reading Check

Form Generalizations
What types of information can population density provide?

yellow areas indicate sparse populations. When an area is thinly populated, it is often because the land does not provide a very good life. These areas may have rugged mountains or harsh deserts where people cannot grow crops. Some areas may be frozen all year long, making survival there very difficult. For these reasons, very few people live in parts of far North America, Greenland, northern Asia, and Australia.

Notice on the world population density map that some areas have large clusters of population. Such clusters can be found in East and South Asia, Europe, and eastern North America. Fertile soil, plentiful vegetation, reliable sources of water and minerals, and a good agricultural climate make these regions favorable for settlement. For example, the North China Plain in East Asia is one of the most densely populated regions in the world. The area's plentiful agricultural land, many rivers, and mild climate have made it an ideal place to settle. The natural resources in these regions offer job opportunities in farming, mining, and timber production. These industries can provide great economic benefits to the area.

As populations swell in desirable areas, there is a higher demand for resources. These demands can drastically affect the environment. Many developed nations consume resources faster than they can regenerate them. In some areas, population has been growing faster than food supplies. The amount of available farmland is shrinking as regions make room for more people. Coastal ecosystems are being pressured by urban development. The demand for fresh water also increases with population. Some countries may even face shortages in the future.

Connect to Math

Calculate Population Density

Population density measures the number of people living in an area. To calculate population density, divide a place's total population by its area in square miles (or square kilometers). For example, if your city has a population of 100,000 people and an area of 100 square miles, you would divide 100,000 by 100. This would give you a population density of 1,000 people per square mile ($100,000 \div 100 = 1,000$).

Evaluate

If a city had a population of 615,000 and a total land area of 250 square miles, what would its population density be?

City	Population	Total Area (square miles)	Population Density (people per square mile)
Adelaide, Australia	1,255,516	705	1,781
Lima, Peru	9,897,033	1,032	9,590
Nairobi, Kenya	3,914,791	269	14,553

Source: *World Urbanization Prospects*, Population Division, UN Dept. of Economic and Social Affairs

Population Change

The study of population is much more important than you might realize. The number of people living in an area affects all elements of life—the availability of housing and jobs, whether hospitals and schools open or close, even the amount of available food. Geographers track changes in populations by examining important statistics, studying the movement of people, and analyzing population trends.

Tracking Population Changes Geographers examine three key statistics to learn about population changes. These statistics are important for studying a country's population over time.

Three key statistics—birthrate, death rate, and the rate of natural increase—track changes in population. Births add to a population. Deaths subtract from it. The annual number of births per 1,000 people is called the **birthrate**. Similarly, the death rate is the annual number of deaths per 1,000 people. The birthrate minus the death rate equals the percentage of natural increase, or the rate at which a population is changing. For example, Denmark has a rate of natural increase of 0.01 percent. This means it has slightly more births than deaths and a very slight population increase.

Population growth rates differ from one place to another. In some countries, populations are growing very slowly or even shrinking. Many countries in Europe and North America have very low rates of natural increase. In Russia, for example, the birthrate is about 11 and the death rate is around 14. The result is a negative rate of natural increase and a shrinking population.

In most countries around the world, however, populations are growing. Mali, for example, has a rate of natural increase of about 3.1 percent. While that may sound small, it means that Mali's population is expected to double in the next 20 years! High population growth rates can pose

The Human World 109

Teach the Main Idea

Population statistics and trends are important measures of population change.

Identify What statistic subtracts from a country's population? *death rate*

Recall Which continents have countries with the lowest rates of natural increase? *Europe and North America*

Summarize How does migration affect the population of the world? *It doesn't affect the total population but affects the population of individual countries.*

More About . . .

Connect to Today: Migration People have been migrating from one area to another since before civilization began. Since the 1600s North America and the United States have been a destination for many people. In the 1800s and early 1900s immigrants poured in from Europe.

Today, migration to the United States continues, with about 9 million people arriving between 1995 and 2003. About one-third of those people came from Mexico. Another third came from other countries in the Americas. Immigrants from Asia make up more than one-fourth of the total, while Europeans account for only about one in seven new immigrants.

TABLES

Connect to Math: Calculate Population Density

Have students explore the table and answer the associated question.

Evaluate If a city had a population of 615,000 and a total land area of 250 miles, what would its population density be? *2,460 people per square mile*

COLLABORATIVE LEARNING

Factors Affecting Death Rates

Materials: a listing of world death rates (available at <https://www.cia.gov/cia/publications/factbook/index.html>)

1. Select countries to research, such as countries with high and low death rates or those affected by epidemic, drought, tsunami, and so on.
2. Divide the class into small groups. Assign a country to each group. Tell students their job is to research factors such as standard of living, medical care, and natural disasters. Tell students these factors will help explain their country's ranking among other countries in the world.

3. Have each group present an oral report listing factors which have affected the death rate in their country in recent years.

*Alternative Assessment Handbook, Rubric 30: Research

For additional instruction, go to end of lesson.

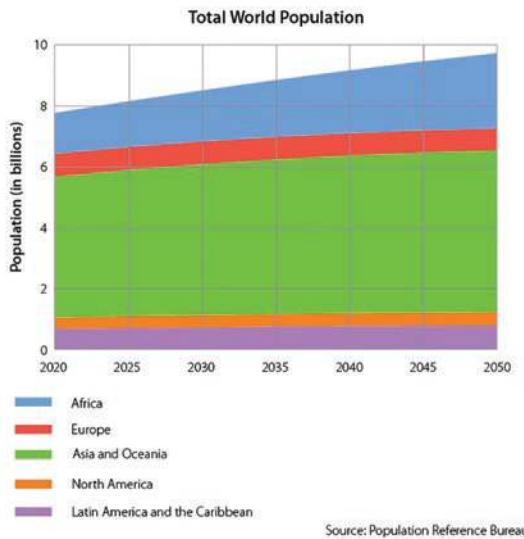


ONLINE INTERACTIVE GRAPHS

Forecast for World Population

Have students explore the graph and answer the associated question.

Interpret Graphs Which continent is expected to have the fastest population growth between 2020 and the year 2050? *Africa*



Irish Migration

The failure of Ireland's most important food crop, the potato, caused widespread starvation. Disease and high food prices forced many Irish to flee to America in search of a better life.



Irish Migration to The United States, 1845–1855



Analyze Graphs

In what year did Irish migration to the United States peak?

some challenges, as governments try to provide enough jobs, education, and medical care for their rapidly growing populations.

Many governments track their regional population patterns and trends. Analyzing current data and making population projections can help leaders address present and future needs of citizens. This might involve enacting new laws that protect the natural resources of an area. A government could also develop policies that provide more economic opportunities for a region. For example, China's most recent Five-Year Plan promotes the use of cleaner energy sources to reduce pollution. The plan also outlines ways that China will strengthen support for farmers, increase agricultural income, and improve rural infrastructure.

Migration A common cause of population change is migration. **Migration** is the process of moving from one place to live in another. As one country loses citizens as a result of migration, its population can decline. At the same time, another country may gain population as people settle there.

People migrate for many reasons. Some factors push people to leave their country, while other factors pull, or attract, people to new countries. Warfare, a lack of jobs,

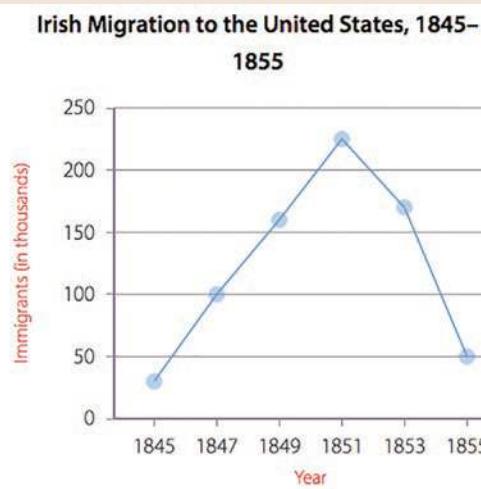


ONLINE INTERACTIVE GRAPHS

Irish Migration to the United States, 1845–1855

Have students explore the graph using the interactive features and answer the associated question.

Interpret Graphs In what year did Irish migration to the United States peak? *1851*



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ENGLISH LANGUAGE LEARNERS

Sports Figures: Where do they come from?

Ask students to select a favorite U.S. sports team and determine how many of its players come from other countries. Students can use the Internet or other resources. Invite students to give an oral report when their work is complete.

*Alternative Assessment Handbook, Rubric 30: Research

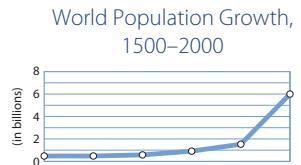
or a lack of good farmland are common push factors. For example, during the Irish potato famine of the mid-1800s, poverty and disease forced some 1.5 million people to leave Ireland. Opportunities for a better life often pull people to new countries. For example, in the 1800s and early 1900s, thousands of British citizens migrated to Australia in search of cheap land.

Political conditions such as freedom or persecution can also cause movement. The political system of apartheid in South Africa imposed a regime of segregation and racial oppression from the mid-1900s until 1994. Thousands of black South Africans were forced to migrate to other parts of Africa. Environmental factors such as climate can also lead to migration. For example, people who live in harsh climates are often attracted to regions with milder climates.

World Population Trends In the last 200 years, Earth's population has exploded. For thousands of years, world population growth was low and relatively steady. About 2,000 years ago, the world had some 300 million people. By 1800 there were almost 1 billion people. Since 1800, better health care and improved food production have supported tremendous population growth. By 2012 the world's population passed 7 billion people.

World Population Growth

Advances in food production and health care have dramatically lowered death rates. As a result, the global population has seen incredible growth over the last 200 years.



Analyze Graphs

By how much did the world's population increase between 1800 and 2000?

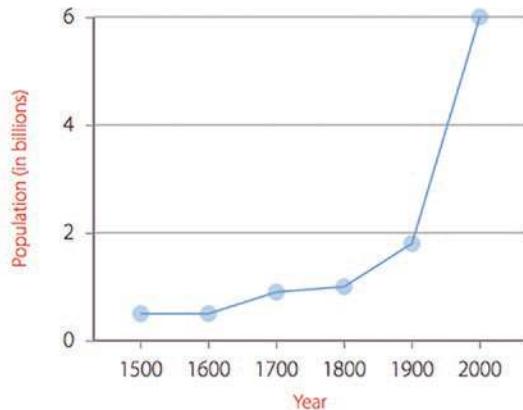
ONLINE INTERACTIVE GRAPHS

World Population Growth, 1500–2000

Have students explore the graph using the interactive features and answer the associated question.

Interpret Graphs By how much did the world's population increase between 1800 and 2000?
about 5 billion

World Population Growth, 1500–2000



Source: *Atlas of World Population History*

ADVANCED/GIFTED

World Population

- Ask students to conduct initial research to choose a particular country that is experiencing strong population growth, such as India, China, or Nigeria. Then have students conduct in-depth research on both past population trends and future predicted population growth within that country and within the continent in which the country is located.
- Have students create population growth graphs for their chosen country and continent.

- As a class, review the graphs and discuss how the growth in these countries and continents will affect worldwide population growth and the local and global effects of the population growth.

*Alternative Assessment Handbook, Rubrics 30: Research; and 11: Discussions

READING CHECK

Summarize What population statistics do geographers study? Why? *population change (natural increase) and migration (movement) trends; to understand how population affects the elements of life (jobs, housing, schools, medical care, available food)*

Reading Check

Summarize
What population statistics do geographers study?
Why?

Population trends are an important part of the study of the world's people. Two important population trends are clear today. The first trend indicates that the population growth in some of the more industrialized nations has begun to slow. For example, Germany and France have low rates of natural increase. A second trend indicates that less industrialized countries, like Nigeria and Bangladesh, often have high growth rates. These trends affect a country's work force and government aid.

Summary and Preview In this lesson you learned where people live, how crowded places are, and how population changes. Geographers study population patterns and trends to plan for the future. In the next lesson, you will learn about factors that influence the settlement patterns of people.

Print Assessment

Review Ideas, Terms, and Places

1. a. **Identify** What regions of the world have the highest levels of population density? *East Asia, South Asia, Europe, eastern North America*
b. **Draw Conclusions** What information can be learned by studying population density? *Possible answers: the amount of open space, the price and availability of land, height of buildings, traffic on roads*
c. **Evaluate** Would you prefer to live in a region with a dense or a sparse population? Why? *Possible answers: dense, because there are more options for working, shopping, and being around other people; sparse, because there is more open space and less traffic*
2. a. **Describe** What is natural increase? What can it tell us about a country? *rate at which a population is changing (yearly birthrate minus the yearly death rate as a percentage); its growth and economic situation*
b. **Analyze** What effect does migration have on human populations? *It affects the population of countries.*
c. **Predict** What patterns do you think world population might have in the future? *Possible answers: continued rapid growth; slowing of growth as resources diminish*

Critical Thinking

3. **Summarize** Draw a circular graphic organizer with two equal sections. Label one section *Population Patterns* and the other section *Population Change*. Use your notes to write a sentence that summarizes each aspect of the study of population. *Possible answers: Population patterns—Geographers study how many people live in areas, where they live and why, and how populations change; Population change—They study birthrate, death rate, and rate of natural increase to find population trends.*

Lesson 2 Assessment

Review Ideas, Terms, and Places

1. a. **Identify** What regions of the world have the highest levels of population density?
b. **Draw Conclusions** What information can be learned by studying population density?
c. **Evaluate** Would you prefer to live in a region with a dense or a sparse population? Why?
2. a. **Describe** What is natural increase? What can it tell us about a country?
b. **Analyze** What effect does migration have on human populations?
c. **Predict** What patterns do you think world population might have in the future?

Critical Thinking

3. **Summarize** Draw a chart with two columns. Label one column *Population Patterns* and the other column *Population Change*. Use your notes to write a sentence that summarizes each aspect of the study of population.

Population Patterns	Population Change

► Online Assessment

1. How does high population density often affect life in a country's cities?

- There is little traffic.
- Buildings tend to be short.
- Land is usually expensive.
- There is abundant land available.

Alternate Question Which of the following is an accurate statement about population density? Select the **three** correct answers.

- Cities with high population densities tend to have less traffic.
- Cities with high population densities tend to have tall buildings.
- Cities with low population densities tend to have crowded roads.
- Countries with high population densities tend to have expensive land.
- Countries with low population densities tend to have more open spaces.
- Countries with low population densities tend to have little available land.

2. Why do geographers study population trends?

- to understand the movement of people
- to distribute available food to people
- to decide whether to open or close hospitals
- to determine whether housing or jobs will be available

Alternate Question Select the answer choice from the drop-down list to complete the sentence correctly.

Geographers study population changes resulting from a number of factors, such as the movement of people.

3. How are low population densities and geography related?

When an area has a low population density, it is often because the land cannot support life. Areas like deserts, mountains, or the Arctic do not have high population densities because the geography is too harsh to support human settlement. It is difficult to grow crops in deserts, along mountainsides, or in icy areas, so people choose not to live there.

4. Why might Mali's population growth cause problems in the future?

A natural increase rate of 3.1 percent will cause Mali's population to double in the next 20 years. This population growth, if unchecked, will most likely overwhelm Mali's ability to provide for its aging population. Mali's government will probably struggle to provide its citizens with enough jobs, good education, and adequate medical care.

ADDITIONAL INSTRUCTIONAL MATERIALS

continued from page 107

More About . . .

Connect to Math: Calculate Density of the Classroom Have students calculate the population density of the classroom (persons per square foot [sq m]) by counting the people and dividing by the (estimated) square feet (sq m) of the classroom. You may want to provide the estimated square footage of the classroom or have students measure and calculate.

continued from page 109

More About . . .

A Nation of Immigrants Point out to students that, with the exception of Native Americans, all people in the United States are descendants of immigrants. Ask student volunteers about their heritage and if they know the reasons their ancestors or immediate family immigrated to the United States.

World Population Growth In the period from AD 1 to about 1800, the world's population grew on average by about 444,000 people per year. Between 1800 and 2000 it grew by about 25 million people per year, more than 50 times that of the previous period. In 2005 the U.S. Census Bureau estimated that the world population would grow by about 75 million people, more than 150 times the rate before 1800.



Settlement Patterns

- Urban and Rural

● Computers

Videos

Visuals

LESSON 3

Big Idea

Many factors influence where people settle and how settlements develop.

Maps,
Graphs, and
Charts

- Chart: Types of Settlement Patterns

- Game: Welcome, Time Traveler!
- Urban Planning in the United States
- Technology Bio

Extend
and Enrich

Sources

- Document-Based Investigation: Settlement Patterns

Assessment

- Key Terms Review
- Reading Check
- Graphic Organizer Activity
- Lesson Assessment

KEY

- Non-digital resource

► Online Lesson 3 Enrichment Activities

Urban Planning in the United States

Research Students research maps of major cities to examine and draw conclusions about the advantages and disadvantages of different settlement patterns.

Technology Bio

Biography Students write a short biography of someone associated with technology, outlining and showcasing the technologist's contributions.

Settlement Patterns

The Big Idea

Many factors influence where people settle and how settlements develop.

Main Ideas

- Natural resources and trade routes are important factors in determining location for settlements.
- Areas can be defined as urban or rural.
- Spatial patterns describe ways that people build settlements.
- New technology has improved the interaction of regions with nearby and distant places.

Key Terms and Places

settlement
trade route
urban
suburb
metropolitan area
megalopolis
rural
spatial pattern
linear settlements
cluster settlements
grid settlements
commerce

If YOU lived there ...

You live in Phoenix and your parents tell you that they must relocate for work. The family asks for your opinion on where to move. Do you prefer the city lights and skyscrapers of Chicago or the Smoky Mountains in North Carolina?

How do people decide where to live?

The Importance of Location

A **settlement** is any place where a community is established. Settlements vary in size, ranging anywhere from a heavily populated city to a remote island village. Where people choose to settle depends on many factors. These factors may be economic, political, or related to natural resources.

Natural Resources People have always settled near natural resources. Some of the earliest settlements were started near sources of freshwater or on tracts of land that were good for farming. As people began to use other resources, the places where they settled changed. During the late 1800s, the cities of Pittsburgh, Pennsylvania, and Birmingham, Alabama, grew considerably. This was due to their location near deposits of iron ore and coal. The steel manufacturing industry led to booms in both cities.

Trade Routes Because resources are not distributed evenly, trade routes have always been important to settlements. A **trade route** is a path used by traders for buying and selling goods. Villages, towns, and cities were often started along trade routes, and these places grew as the routes grew. For example,

Birmingham, Alabama, was founded in 1871 at the crossing of two railroad lines, near rich deposits of iron and coal.



Teach the Main Idea

Natural resources and trade routes are important factors in determining location for settlements.

Recall Some of the earliest settlements were located near which types of natural resources? *sources of freshwater or tracts of good farmland*

Define What is a trade route? *a path used by traders for buying and selling goods*

Explain Why are trade routes important to settlements? *Resources are not distributed evenly, so trade routes allow settlements to acquire goods they need.*

Identify Name two settlements that grew along a major trade route. *Singapore and Timbuktu*

Teach the Big Idea

1. Whole Class Open/Introduction

If YOU lived there ...

How do people decide where to live?

Review the scenario with students, and lead a class discussion around responses to the question. Remind students that all responses are valid as long as they are supported with valid reasoning. You may wish to review the following points to frame your discussion.

Consider reasons to live in CHICAGO:

- A wide variety of activities are available.
- Many different culture groups live there.
- Life in a big city is fast-paced and exciting.

Consider reasons to live in the SMOKY MOUNTAINS:

- The natural scenery is beautiful and relaxing.
- Crime and pollution are low.
- There are no large crowds of people.

2. Direct Teach Introduce the Big Idea: *Many factors influence where people settle and how settlements develop.* Ask students if they know why their family settled in their community. Have students offer some reasons why people might choose to live in one place rather than another. Tell students that they will be examining some of those reasons in this lesson.

3. Practice/Assess/Inquire Ask students: What do humans require from their settlements? Have students list as many site and situational factors (e.g., water to drink, protection) as they can think of that a settlement needs to be successful.

4. Explore (Collaborative Exploration) Ask volunteers for examples from their list and write them on the board. Discuss the examples and add others students might not have included. Query students about the relative importance of the various factors—are some more (or less) important today compared to the past?

5. Whole Group Close/Reflect Ask each student to select the three factors he or she thinks are most important for a successful settlement and write a one-page essay explaining their reasoning.

*Alternative Assessment Handbook, Rubrics 11: Discussions; and 12: Drawing Conclusions.

ONLINE DOCUMENT-BASED INVESTIGATION

The Human World

Settlement Patterns is the third of four document-based investigations that students will analyze in The Human World. Students will navigate through the carousel showing differences among spatial patterns of human settlement.

Teach the Main Idea

Areas can be defined as urban or rural.

Define What is a megalopolis? A *megalopolis* is an area where several metropolitan areas have grown together.

Identify Do you live in an urban, suburban, or rural area? *Students' answers will vary.*

Rank Which settlement area has the highest population density: urban, suburban, or rural? Which is the lowest population density? *Urban areas have the highest population density; rural areas have the lowest.*

Make Generalizations In which type of settlement is a stockbroker most likely to work? What about a miner? *A stockbroker is most likely to work in an urban area; a miner is most likely to work in a rural area.*

ONLINE INTERACTIVE VISUALS

Image Compare: Urban and Rural

Have students explore and compare the images using the interactive slider. You may wish to use the associated question as a discussion prompt.

Analyze Visuals How are the urban and rural scenes different? *Possible answers: urban—busy streets filled with traffic, high-rise buildings, lots of people moving about; rural—wide open spaces, not many buildings, lots of land, agricultural work*

Reading Check

Find Main Ideas

Why are natural resources and trade routes important to a settlement?



Singapore's location along a major shipping route has helped make the tiny island nation rich. Singapore, in Southeast Asia, grew along a major shipping route. The city of Timbuktu in western Africa was founded at the place where major caravan routes met. The Niger River, an important water trade route, was also located nearby. Timbuktu thrived not only as a trading center but also as a political center because of the different groups that met there to trade.

Urban and Rural

Geographers often classify patterns of settlement by size. One way they do this is by defining areas as urban or rural.

Urban areas are cities and the surrounding areas. They are heavily populated and very developed. This means that urban areas have many structures such as houses, roads, and commercial buildings. Most people work in jobs not related to agriculture.

Small urban areas might include a city center or a **suburb**. A suburb is an area immediately outside of a city, often a smaller residential community. Large urban areas might include an entire city and nearby suburbs. A city, its suburbs, and surrounding areas form a large urban area called a **metropolitan area**. When several metropolitan areas grow together, they form a **megalopolis**. A megalopolis in the northeastern United States is the tract of cities including Boston, New York, Philadelphia, Baltimore, and Washington, DC.

Rural areas are found outside of cities. They are less densely populated and have fewer structures. The economic activities of rural areas are usually tied to the land. Agriculture, forestry, mining, and recreation are examples of rural economic activities. Settlements in rural areas are often built around these activities.



Times Square in Manhattan is an urban area.



The economic activities in rural areas are usually tied to the land.

READING CHECK

Find Main Ideas Why are natural resources and trade routes important to a settlement? *survival and the economic development of a settlement; to buy and sell goods*

114 Module 3

ONLINE GRAPHIC ORGANIZER

Settlement Patterns

As students read the lesson, have them use the graphic organizer to take notes. Students can review their graphic organizer notes at the end of the lesson to answer the following question:

Explain What is the importance of location? *Possible answer: Location is important for the success and survival of a settlement.*

READING CHECK

Contrast What is the difference between urban and rural areas? *urban: cities and surrounding areas, high population, developed, nonagricultural jobs; rural: outside of cities, less population, fewer structures, agricultural economy*

ONLINE LESSON FLIP CARDS

Review Key Terms and Places

Students can use the flip cards in the Lesson Review at any time to review the lesson's key terms and places: **settlement, trade route, urban, suburb, metropolitan area, megalopolis, rural, spatial pattern, linear settlements, cluster settlements, grid settlements, commerce.**

Spatial Patterns

There are many factors that influence settlement design. Within urban and rural areas, settlements are built in certain ways. Geographers use spatial patterns to describe and classify how people build settlements. A **spatial pattern** is the placement of people and objects on Earth and the space between them.

Types of Settlements **Linear settlements** are grouped along the length of a resource, such as a river. They usually form a long and narrow pattern. In the eastern United States, many linear settlements were started along the Fall Line. This is a place where the land drops sharply to the Coastal Plain. This drop causes rivers to form waterfalls and rapids. In the past, people used the fast-moving water along the Fall Line to power factories and machines. Today, this water is used to generate electricity.

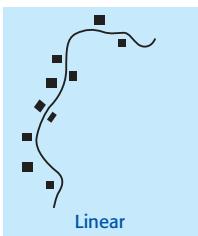
Cluster settlements are grouped around or at the center of a resource. Coal became an important resource in Europe in the early 1800s. Settlements were founded on the outskirts of coal deposits, or seams, to support mining operations. The Corn Belt is located in the midwestern United States and includes Iowa, Illinois, and Indiana, as well as parts of Nebraska, Kansas, Minnesota, and Missouri. Since the 1850s, this area has been a leading producer of corn. Settlements in the Corn Belt, like many agricultural areas, are designed to maximize the available land for farming.

Grid settlements are purposefully laid out with a network of transportation routes. Streets form a grid by running at right angles to each other. These settlements are commonly found in urban areas. Transportation networks are commonly made of roads, though some places also have networks of water routes or underground subway and train routes. Washington, DC, is one example of a grid settlement. It was designed using a grid plan that includes diagonal avenues often connected by traffic circles. This layout continued as the capital expanded.

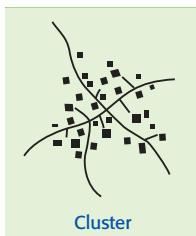
Reading Check
Identify Problems
What is one problem that could occur in a cluster settlement?

Types of Settlement Patterns

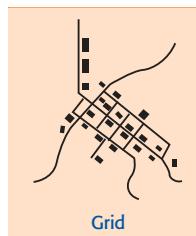
Some basic types of settlement patterns include linear, cluster, and grid.



Linear



Cluster



Grid

Analyze Visuals

How would you classify the settlement pattern of your community?

The Human World 115

ADVANCED/GIFTED

Settlement Songs and Poems

1. Direct students to reread the section on Types of Settlements.
2. Have them write a song or poem about the three types of settlements. Poems and songs should have three stanzas, one for each type of settlement.
3. Have students share their work in small groups, and have each group select either a poem or song to share with the class.

*Alternative Assessment Handbook, Rubric 26: Poems and Songs

CHARTS

Types of Settlement Patterns

Have students interpret the chart and answer the associated question.

Analyze Visuals How would you classify the settlement pattern of your community?
Answers will vary depending on location.

Teach the Main Idea

Spatial patterns describe ways that people build settlements.

Recall What are the three types of settlement patterns? *linear, cluster, and grid*

Identify Which type of settlement pattern is most likely to be found along a river? *linear*

Draw Conclusions Which type of settlement pattern has the most efficient transportation routes? Explain your answer. *Possible answer: Grid settlements have the most efficient transportation routes; they are laid out with a network of interconnected streets, making it relatively easy to move from one point to another.*

More About . . .

Names of Transportation Routes Though traditional naming conventions are not always strictly followed, city planners tend to identify transportation routes in very specific ways. A *road*, for example, runs between two locations (such as two towns). A *street* is an urban roadway lined with houses and other buildings. *Avenues* tend to be lined with both buildings and trees. A *boulevard* is a very wide city street lined with trees on both sides, typically with a median in the middle. By contrast, a *lane* is a very narrow road or street. Both *court* and *place* designate short streets ending in a circle or loop (or a dead end).

ONLINE DOCUMENT-BASED INVESTIGATIONS

Carousel: Settlement Patterns

Have students navigate through the carousel and note the different settlement patterns. You may wish to use the associated question as a discussion prompt.

Analyze Sources Study the images. How do settlement patterns help people in these locations? *Possible answer: Transportation networks make it easier for people in Los Angeles to move from place to place. Carefully organized farmland provides important food and income sources for residents of the Philippines. The people in Quebec City can easily access the St. Lawrence River as a resource for food, fresh water, transport, and trade.*

READING CHECK

Identify Problems What is one problem that could occur in a cluster settlement? *A resource could run out over time.*

Teach the Main Idea

New technology has improved the interaction of regions with nearby and distant places.

Define What is commerce? *Commerce refers to the substantial exchange of goods between cities, states, or countries.*

Identify What are some 20th-century inventions that improved communications between regions? *television, satellites, computers*

More About . . .

Misconception Alert Students may believe that a region's capital city is by definition its largest and/or most economically important city. This is not always the case. In the United States, many state capitals are neither the largest nor the most economically important regional city. For example, the capital of New York is Albany, not New York City; the capital of Illinois is Springfield, not Chicago. Often, state capitals were chosen by state legislatures because they were accessible by the common modes of transportation at the time.



► ONLINE ANALYZE VIDEOS

Computers



Have students watch the video individually or as a class. You may wish to use the associated question as a discussion prompt.

Analyze Videos According to the video, what have computers been able to accomplish?

Computers have already helped win wars, solved nearly impossible problems, and launched humans into space.

Planned transportation networks, such as this highway system in Los Angeles, California, are a feature of grid settlements.

Regions Interact

People live in or near urban areas because they are centers for commerce and trade. **Commerce** refers to the substantial exchange of goods between cities, states, or countries. Usually, urban areas are also centers of government services for a region. Moreover, cities are often known as hubs for education, communication, transportation, and innovation.

Advances in Technology Starting during the mid-1900s, new inventions including television and satellites greatly improved communications. Later, computers and the Internet also improved communications and changed the ways people collected, stored, shared, and used information.

Technological advances affected cities and the places near them. Cities were able to tailor services and communications to nearby regions. For example, some large metropolitan newspapers now contain local news sections that cover specific communities. Businesses in cities are able to develop products or services for a specific area and then advertise only to that area to save money. One example of this is the promotion and advertisement of local concerts and events through radio, television, and the Internet.

Advances in communications have also enabled cities to reach distant places and markets. For example, many local television channels can now be accessed and viewed in places around the world. By serving as communications centers, many cities are able to participate directly in today's global market.

Advances in transportation have also changed how people and ideas move around the world. Today, people can travel great distances in a

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COLLABORATIVE LEARNING

Business and Economic Activity

1. Divide the class into small groups. Assign a major world city to each group. Explain to students that they will research the important business and economic activities in their city and the ways those activities impact nearby and distant places.

2. Students should consider various factors as they conduct their research. For example, urge them to consider how advances in communication and transportation have impacted the economic activities of the city.

3. Have each group create a multimedia presentation on their findings, explaining the role and importance of their city on a regional, national, and global basis.

*Alternative Assessment Handbook, Rubrics 30: Research; and 22: Multimedia Presentations

► GAME

Welcome, Time Traveler!

Have students play the game to test their knowledge of settlement patterns by answering the questions.

Traders work on the floor of the New York Stock Exchange on Wall Street in New York City. The New York Stock Exchange is one of the world's largest trading marketplaces. Wall Street and New York City have long been hubs of interaction for the financial industry.



Reading Check
Summarize How has new technology changed interaction between regions?

shorter amount of time. For example, the 7,500-mile (17,070-km) flight from Los Angeles to Sydney, Australia, takes less than 15 hours. Transportation hubs such as airports, train stations, and subway systems connect major cities across the globe. In a sense, new technology has allowed our enormous world to seem much smaller.

Summary and Preview In this lesson you learned about the many factors that influence where people settle and how settlements develop. In the next lesson, you will learn about how people interact with their environments.

Lesson 3 Assessment

Review Ideas, Terms, and Places

1. a. **Define** What is a settlement?
b. **Analyze Effects** How do natural resources and human activities affect settlements?
2. a. **Identify** What terms do geographers use to classify settlement patterns by size?
b. **Form Opinions** Would you prefer to live in a rural or urban area? Explain your choice.
3. a. **Explain** How do geographers use spatial patterns?
b. **Synthesize** What pattern would you choose to design a settlement? Provide reasons for your selection.
4. a. **Analyze** How do cities affect nearby and distant places?
b. **Elaborate** How does technology make the world seem smaller?

Critical Thinking

5. **Summarize** Use a three-column chart to write a sentence that summarizes each type of settlement. Include an example for each.

Linear Settlement	Cluster Settlement	Grid Settlement

READING CHECK

Summarize How has new technology changed interaction between regions? *Advances in communications have helped people use and share information more efficiently. Cities are better equipped to meet the needs of nearby regions. New technology has enabled cities to reach distant places and participate in today's global market.*

Print Assessment

Review Ideas, Terms, and Places

1. a. **Define** What is a settlement? *any place where a community is established*
b. **Analyze Effects** How do natural resources and human activities affect settlements? *Possible answer: Some settlements develop near natural resources, such as water sources, fertile land, and coal deposits. Other settlements develop around human activities, such as trade.*
2. a. **Identify** What terms do geographers use to classify settlement patterns by size? *rural or urban*
b. **Form Opinions** Would you prefer to live in a rural or urban area? Explain your choice. *Answers will vary. Students should provide an explanation for their choice.*
3. a. **Explain** How do geographers use spatial patterns? *Geographers use spatial patterns to describe and classify how people build settlements.*
b. **Synthesize** What pattern would you choose to design a settlement? Provide reasons for your selection. *Answers will vary. Students should provide logical reasoning to explain their selection.*
4. a. **Analyze** How do cities affect nearby and distant places? *Possible answer: Cities are centers for commerce, trade, government services, education, communication, transportation, and innovation.*
b. **Elaborate** How does technology make the world seem smaller? *Possible answer: The Internet has changed the way people communicate and share information. People do not have to travel long distances to connect with others around the world. The Internet has brought people closer together.*

Critical Thinking

5. **Summarize** Use a three-column chart to write a sentence that summarizes each type of settlement. Include an example for each. *Possible answers: Linear settlements are grouped along the length of a resource. Fall Line of eastern United States; Cluster settlements are grouped around or at the center of a resource. Corn Belt in midwestern United States; Grid settlements are purposefully laid out with a network of transportation routes. Washington, DC.*

► Online Assessment

1. Why did the cities of Birmingham, Alabama, and Pittsburgh, Pennsylvania, grow rapidly during the 1800s?
 - They became state capitals.
 - They were located near major trade routes.
 - They were located near coal and iron deposits.
 - They established textile and furniture industries.

Alternate Question Select the answer choice from the drop-down list to complete the sentence correctly.

Birmingham, Alabama, and Pittsburgh, Pennsylvania, grew rapidly during the 1800s as a result of steel manufacturing, which required sources of **coal** and iron.

2. How is life in urban areas different than in rural areas?
 - Rural areas are more heavily populated than urban areas.
 - Rural areas have many more paved roads than do urban areas.
 - In urban areas, most jobs are related to agriculture, while in rural areas, most jobs are not related to agriculture.
 - In urban areas, there are many commercial buildings, while in rural areas, there are fewer commercial buildings.

Alternate Question Select the answer choice from the drop-down list to complete the sentence correctly.

There are more **nonagricultural** jobs in urban areas than in rural areas.

3. Why are cluster settlements created?
 - to follow the flow of a river, like the Mississippi
 - to take advantage of a natural resource, like coal
 - to develop a city along a grid pattern, like Washington, DC
 - to develop a city with good transportation networks, like highways

Alternate Question Select the answer choice from the drop-down list to complete the sentence correctly.

Many European cities were established during the 1800s as cluster settlements that grew up near **coal mines**.

4. How did the inventions of the satellite and televisions affect life in the United States in the 1900s?
 - They greatly improved transportation.
 - They greatly improved communications.
 - They changed the way people shared information.
 - They changed the way people collected information.

Alternate Question Select the answer choice from the drop-down list to complete the sentence correctly.

During the 1900s, the invention of satellites and television greatly improved **communications**.

5. **Draw Conclusions** How have trade routes influenced human settlement? Explain the settlement of one city.

Trade routes are established in order to move goods from where they are produced to where they can be sold. Often, cities are established along these trade routes as market towns or where trade routes meet. For example, the western African city of Timbuktu was established where major caravan routes meet and because it is close to a water source, the Niger River.

6. **Summarize** When does a metropolitan area become a megalopolis? Give an example.

A metropolitan area includes the city, its suburbs, and surrounding areas that are developed. As metropolitan areas grow, they often connect with other metropolitan areas to form a megalopolis. In the United States, the metropolitan areas of Boston, New York, Philadelphia, Baltimore, and Washington, DC, have grown into a megalopolis.

7. **Elaborate** Why did some American settlers choose to establish towns along a linear settlement pattern?

Linear settlements are towns that are located along the banks of rivers. These rivers provide fresh water for drinking and growing crops. Towns that were settled along the Fall Line, where land drops sharply to the coastal plain, took advantage of rapidly flowing rivers to power factories and machines, and today produce electricity.

8. **Draw Conclusions** How have technological advances affected how people and ideas move around the world?

Improvements in transportation have allowed people to travel faster than before. For example, with the invention of jet airplane travel, a person can fly halfway across the world in less than a day. Ideas can be conveyed almost immediately with the invention of satellites, telephones, the Internet, and television. These inventions have made the world seem smaller.

ADDITIONAL INSTRUCTIONAL MATERIALS

continued from page 114

STRUGGLING READERS

Our State: Rural or Urban?

1. Review the explanation of the terms *rural* and *urban* with students. Ask students to identify particular areas or cities in the United States as rural or urban, including Los Angeles, Portland, Phoenix, Miami, Atlanta, Chicago, and St. Louis. Include other major urban areas and cities in the state where you live. Rural regions might include Wyoming, Montana, North and South Dakota, and agricultural areas within individual states.
2. As students identify whether an area is urban or rural, ask them to explain how they made their decision. You might also ask students to name what conditions would have to change for a rural area to become urban and what would have to change in an urban area to return it to a rural area.

*Alternative Assessment Handbook, Rubric 9: Comparing and Contrasting



Human-Environment Interaction

- Environmental Issues
- How Fracking Works

- Natural Hazards
- Hoover Dam
- Losing Groundwater



► Online Lesson 4 Enrichment Activities

Natural Hazards

Brochure Students create a brochure about a natural hazard that they believe most affects their community.



Losing Groundwater

Article Students read an article about groundwater and some of the concerns surrounding its sustainability. Students then think about water-related issues that may face their community in the years to come.

Hoover Dam

Video Students watch a video about Hoover Dam to learn about the clean, renewable energy it generates.



Teach the Big Idea

1. Whole Class Open/Introduction

If YOU lived there ...

How do people affect the environment?

Review the scenario with students and lead a class discussion around responses to the question. Remind students that all responses are valid as long as they are supported with valid reasoning. You may wish to review the following points to frame your discussion.

Consider ways people can NEGATIVELY impact the environment:

- Pesticides deplete the soil, rendering it lifeless.
- Air pollution threatens health and contributes to climate change.
- Water pollution damages fragile ecosystems.

Consider ways people can POSITIVELY impact the environment:

- Reforestation efforts restore ecological balance.
- Renewable energy sources reduce dependence on oil and coal.
- Water filtration systems purify water.

2. Direct Teach Introduce the Big Idea: *Specific environments present distinct opportunities for people to meet their needs and unique challenges to which they must adapt.* Ask students how they would describe the environment in their community (cool, hilly, humid, and so on). Then ask them to explain how that environment impacts their clothing, housing, and recreational activities.

3. Practice/Assess/Inquire Ask students to draw a chart with two columns on a piece of paper. Have them label the columns with these headings: *Everyday Activities* and *Seasonal Activities*. Then have them write ways that people affect their environment on a daily basis (e.g., showering, throwing out garbage, driving cars) and on a more seasonal basis (e.g., watering grass, burning leaves).

4. Explore (Collaborative Exploration) Write the headings on the board and ask volunteers for examples from their charts. Ask students to determine which activities negatively impact the environment and which positively affect it.

5. Whole Group Close/Reflect Ask students to write some ways that people can change their behavior on both a daily and a seasonal basis in order to improve the environment.

*Alternative Assessment Handbook, Rubrics 7: Charts; and 11: Discussions

Human-Environment Interaction



If YOU lived there ...

You live on the beach in Southern California and enjoy daily walks by the water. Lately you have noticed the sand littered with trash and debris. Last week your friend rescued a small turtle that was entangled in a plastic bag. You can't help but wonder why these things are happening to such a beautiful place.

How do people affect the environment?

Responding to the Environment

How does geography shape human behavior? Geographers interested in this question investigate how environmental conditions—such as terrain, climate, vegetation, wildlife, variations in soil, and the availability of water resources—shape people's lives. They also study the human systems, or cultural practices, that people develop in response to environmental conditions. Some human systems, like farming, allow people to benefit from what their environment offers. Other systems develop to protect people from conditions beyond their control, such as natural hazards.



The colorful, traditional clothes worn by the Sami, Norway's original population, help them survive harsh winters.

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ONLINE DOCUMENT-BASED INVESTIGATION

The Human World

Types of Farming is the fourth of four document-based investigations that students will analyze in The Human World. The photos in this carousel show slash-and-burn agriculture, terraced farming, and center-pivot irrigation.

Types of Farming



Using slash-and-burn agriculture, farmers cut trees, brush, and grasses and burn debris to clear land for farming. The ash produced creates fertile soils for farming.



Terraced farming is an ancient technique for growing crops on hillsides or mountain slopes. Farmers cut steps into hillsides. This creates flat land for growing crops.



Center-pivot irrigation uses a sprinkler unit in the center of a large, circular field. The sprinkler's long arm circles over the field, spraying water on the crops.

Analyze Visuals

How does each type of farming help resolve a challenge presented by the environment?

Farming Farming is one of the best examples of human-environment interaction. Over time, people across the globe have developed farming practices to grow food under specific environmental conditions. Most notably, farming is affected by climate, vegetation, and soil conditions.

Moreover, with these practices, people refashion the land, leaving their mark on the environment as they make the most of natural resources. For example, the ancient Inca of Peru created farmland by using a method called **terraced farming**. They carved steps into steep hillsides to create flat land for growing crops. In thickly forested areas, such as the Amazon rain forest, farmers developed **slash-and-burn agriculture**. Using this

The Human World 119

Teach the Main Idea

Geographers examine how environmental conditions shape people's lives.

Recall Name at least four environmental conditions that shape people's lives. *terrain, climate, vegetation, wildlife, variations in soil, availability of water*

Explain How does terraced farming work? *Farmers carve steps into hillsides to create flat land for growing crops.*

Identify In what type of environment would slash-and-burn agriculture most likely be practiced? *thickly forested areas*

Draw Inferences Does your school regularly have tornado or earthquake drills? What does this tell you about the environment in your location?

Schools that regularly have these drills are in locations in which tornadoes or earthquakes are likely; if schools do not have these drills, they are likely located in areas where these natural hazards are uncommon.

More About . . .

Terraced Farming Though terraced farming is often associated with the ancient Inca of Peru, it is widely practiced around the world today. For example, much of the rice that is cultivated in Southeast Asia is grown on terraces. Terraced farming is also widely used in the hilly Mediterranean region for vineyards and olive trees.

ONLINE DOCUMENT-BASED INVESTIGATION

Types of Farming

This carousel illustrates three different methods of farming: slash-and-burn agriculture, terraced farming, and circle-pivot irrigation. Have students navigate through the carousel and note the different types of farming.

Analyze Sources How does each type of farming help resolve a challenge presented by the environment? *Slash-and-burn agriculture helps create fertile soil in forested areas; terraced farming allows people to farm in hilly areas; and center-pivot irrigation helps farmers bring water to crops in dry areas.*

The screenshot shows a presentation slide with the title "Types of Farming" at the top. Below the title, there is a photograph of a forest fire with trees and brush burning. To the right of the photo, the text "Slash-and-Burn Agriculture" is displayed. Below this, a descriptive paragraph reads: "Using slash-and-burn agriculture, farmers cut trees, brush, and grasses and burn debris to clear land for farming. The ash produced creates fertile soils for farming." At the bottom of the slide, there are navigation arrows for the presentation.

For additional instruction, go to end of lesson.

technique, farmers cut down trees and plants with knives and machetes. Then they burn the fallen trees to clear land for farming. After a few years, when the soil's nutrients have been used up, farmers move to a new area. Today, in dry regions of the United States, farmers use a technique called **center-pivot irrigation**, which uses a sprinkler system in the center of a large, circular field. The long arms of the sprinkler circle over the field to water crops.

Natural Hazards Weather can be harsh and sometimes deadly. People can adapt to their environment by preparing for natural hazards such as fires, tornadoes, earthquakes, and hurricanes. They change what they do to stay safe based on the climate. These preparations may include building storm shelters or having drills to practice what to do in an emergency. Most schools have fire drills to practice leaving the building. Depending on the weather in a location, some schools have tornado drills or earthquake drills. Cities also have building codes for new buildings and structures. These codes are rules that tell what must be done to keep a building safe when people use it.

In the past, people did not have the tools to prepare for natural hazards. One example is the 1815 eruption of Mount Tambora in Indonesia. The eruption scattered tons of ash, dust, and gas into the atmosphere. In the aftermath, there were food shortages and disease outbreaks. This led to a mass migration of people searching for a better place to live.

During tornadoes, people often seek shelter in basements or interior rooms.



120 Module 3

LINK TO MATHEMATICS

Calculate Tornado Percentages

1. Explain to students that the strength of tornadoes is classified by the Enhanced Fujita Tornado Damage Intensity Scale. The scale ranges from EF-0 (winds between 65 and 85 mph) to EF-5 (winds over 200 mph).
2. Tell students that most tornadoes (about 77 percent) in the United States are ranked as either EF-0 or EF-1 intensity. About 95 percent are ranked below EF-3 intensity. Only 0.1 percent of all tornadoes annually achieve EF-5 status.

3. Tell students that about 1,200 tornadoes hit the United States each year. Ask students to calculate how many would be ranked as EF-0 or EF-1, how many would be ranked below EF-3, and how many would be ranked as EF-5 storms.

*Alternative Assessment Handbook, Rubric 35: Solving Problems

For additional instruction, go to end of lesson.

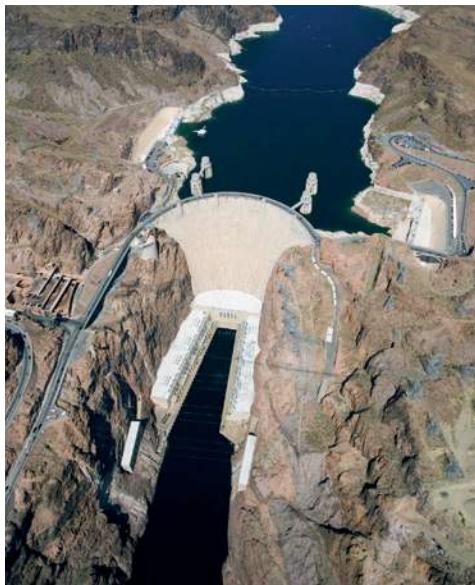
Reading Check
Summarize How can people prepare for natural hazards?

Although we are more prepared for natural disasters in today's world, the impacts can still be devastating. In 2011 an earthquake in the Tohoku region of Japan caused a tsunami and damaged a nuclear power station. Thousands of people fled the area due to earthquake aftershocks, power outages, a lack of food, and fear of radiation from the nuclear reactors.

Changing the Environment

How do people affect the environment? Geographers interested in this question are particularly concerned with how human activity changes specific places, regions, and the world as a whole. They look at how people use the environment to meet their needs and explore the damaging effects that some human activities have on the environment.

Using Resources People are constantly modifying, or changing, their environment. For example, they build roads and bridges to make it easier to move people and goods. They build dams to create steady water sources and to control floods, and they clear land for farming or for new housing developments. People also dig deep into Earth's surface to obtain natural resources to heat their homes, make clothing, and power their cars and businesses. Human activities that change the environment often improve people's lives. New buildings, roads, and bridges help people live, travel, and work, but they are not always beneficial to the environment.



Dams provide necessary water for communities but also disrupt water flow and surrounding ecosystems.

The Human World 121

LINK TO MUSIC

Analyze Song Lyrics

- Obtain a recording of the John Prine song "Paradise," as well as a copy of the lyrics. Before playing the song for students, tell them the title and that it is related to the way people change the environment. Invite students to speculate on what the song might be about based on the title.
- Distribute the lyric sheet to students and have them listen to the song. Explain to students that Paradise, Kentucky, was a real town (it no longer exists) and that "Mr. Peabody" is a reference to the Peabody Coal Company. Describe for students the effect of strip-mining, which is the subject of the song, and tell them

that the region around Paradise has suffered a severe economic downturn since the decline of mining.

- Play the song for students a second time, then solicit their impressions. What is the singer's attitude toward the situation? Does he seem angry? Resigned? Sad? Have students cite particular verses to support their opinions.
- Have students write an additional verse to the song, offering a possible way to avoid future "Paradieses" being "hauled away."

*Alternative Assessment Handbook, Rubric 26: Poems and Songs

Teach the Main Idea

Geographers examine how environmental conditions shape people's lives.

Identify What are some ways people change their environment? *People build roads and bridges, construct dams, clear land for farming or housing, and mine resources such as oil and coal.*

Explain What is an urban heat island, and how does it impact the environment? *An urban heat island occurs in large cities that are densely covered with roads, concrete, and buildings; these features make an area drier and trap heat, causing the environment to be hotter than surrounding areas.*

Compare Why do some people support fracking? Why do some oppose it? *Supporters believe fracking will help reduce dependence on foreign oil and boost economies with the production of homeland fuel. Opponents fear the process will damage the environment and contaminate drinking water.*

Evaluate Do you believe government intervention is the best way to preserve the environment? Why or why not? *Answers will vary, but students should demonstrate an understanding that many governments around the world have enacted policies to protect natural resources.*

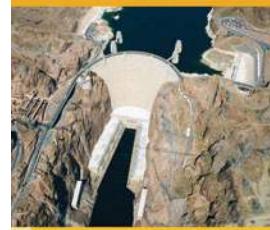
ONLINE INTERACTIVE VISUALS

Carousel: Environmental Issues

Have students navigate through the carousel and note the different types of negative environmental effects. You may wish to use the associated question as a discussion prompt.

Analyze Visuals What negative environmental effects do you see in the photos? *polluted water and air; dam disrupting natural flow of water*

Environmental Issues



Dams provide necessary water for communities but also disrupt water flow and surrounding ecosystems.

READING CHECK

Summarize How can people prepare for natural hazards? *build storm shelters, practice drills, build structures that meet safety codes*



Water pollution harms our food supplies, drinking water, and environment.

Effects of Human Activity Human activities can have negative effects for people and the environment. For example, when a dam is built, it could disrupt an aquatic ecosystem, or the community of plants and animals that live along the river. Blocking the flow of water could change the amount of water downstream, block migration routes, and even change the water chemistry. These changes could, in turn, affect the survival of many river species.

Human activities can also change environmental conditions in larger regions. An urban heat island occurs in large cities that are densely covered with roads, concrete, and buildings. These human features make an area drier and trap heat, causing parts of the city to be hotter than surrounding, less developed areas.

Geographers are especially concerned with how human activities contribute to global environmental challenges, such as pollution, acid rain, land degradation, ozone depletion, and global warming. Such challenges pose a threat to all people and places. For example, the ozone layer helps protect living things from the sun's harmful rays. Scientists have found that human activities have depleted, or used up, areas of the ozone layer. Specifically, chemicals called chlorofluorocarbons (CFCs) cause ozone depletion. For many years, people released CFCs into the atmosphere when

COLLABORATIVE LEARNING

Create Human-Environment Interaction Posters

- Organize the class into groups of four. Ask each group to consider the following questions: What are some ways people adapt to their environment? What are some ways people depend on their environment? What are some ways people change their environment?
- Have each group create a poster that answers these three questions. Each poster should include a title, several examples that show how people adapt to, depend on, and change the environment, and descriptions of each example. Students may use a variety of sources to find their examples, including

newspapers, magazines, and online images.

- Display all the finished posters around the room and allow students an opportunity to view them. Debrief by discussing some of the examples students included on their posters.

*Alternative Assessment Handbook, Rubric 28: Posters



Most air pollution comes from the production and use of energy.

they made or used products such as spray cans, refrigerators, and Styrofoam cups. CFCs were phased out beginning in 1987, but the ozone layer was already damaged. Scientists think this aggravated problems associated with global warming, such as severe storms and rising sea levels.

People have different perspectives on environmental issues. The argument over hydraulic fracturing offers an example. Also known as **fracking**, this process breaks up rock by injecting large amounts of water and chemicals into cracks. This procedure forces cracks in the rock to widen, which allows oil and gas to flow out. In the United States, those against fracking have concerns that the process will significantly damage the environment or contaminate drinking water. Supporters claim that it will reduce dependence on foreign oil and boost economies with the production of homeland fuel.

Some people believe that government intervention is the best way to prevent businesses and individuals from depleting natural resources. Governments around the world have enacted policies in an effort to protect land, freshwater, air, and ocean resources. For instance, Brazil's government designated more than half of the Brazilian Amazon as national parks or indigenous lands. By establishing these protected areas, rates of deforestation and illegal logging have been drastically reduced.

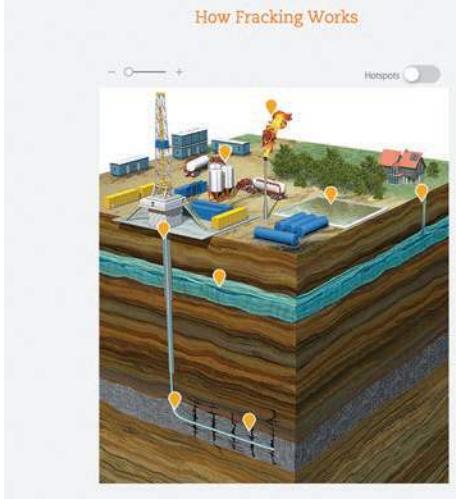
ONLINE INTERACTIVE VISUALS

Image with Hotspots: How Fracking Works

Have students explore the image using the interactive hotspots. You may wish to use the associated question as a discussion prompt.

Analyze Visuals

What could be a concern for the home in this image? *Possible answer: The fracking process could contaminate the home's water supply.*



ADVANCED/GIFTED

Fracking: Pros and Cons

1. Direct students to reread the information in the text on hydraulic fracturing as a means of capturing oil and natural gas. Remind students that these are essential resources to our nation and that the hydraulic fracturing process has both pros and cons, supporters and critics.
2. Have students find current information about the process and the controversy surrounding the practice and create a pros and cons chart.

3. Organize the students into two groups to discuss their charts, and then stage a class debate on the advantages and disadvantages of fracking.

*Alternative Assessment Handbook, Rubrics 7: Charts; and 10: Debates

READING CHECK

Identify Problems What are some environmental problems caused by humans? *disruption of ecosystems, harm to species, pollution, depletion of resources*

Reading Check

Identify Problems
What are some environmental problems caused by humans?

No matter the viewpoint, environmental issues impact every person on the planet. Deforestation has led to the loss of habitat for many species and increased global warming. The burning of fossil fuels causes high levels of pollution, acid rain, and health issues. Desertification damages soil and vegetation, which can lead to food shortages for a region.

Many countries and organizations are working together to improve environmental quality around the globe. For example, the Environmental Protection Agency (EPA) is working with groups in West Africa to improve drinking water standards. The EPA also helped India introduce technologies to manage air quality and decrease vehicle emissions.

Summary In this lesson you learned that geographers investigate how environmental conditions shape people's lives. You also learned about how people interact with their environments.

Print Assessment

Review Ideas, Terms, and Places

1. a. **Define** What is slash-and-burn agriculture?
farmers cut trees, brush, and grasses and burn debris to clear land for farming
- b. **Draw Conclusions** What might happen if people did not develop human systems to deal with natural disasters? *Possible answer: People might not be able to meet their basic needs or survive specific environmental conditions, such as harsh climates and severe weather.*
2. a. **Explain** How do human activities in one place impact the global environment? *Possible answer: People released chemicals into the atmosphere for years, which caused ozone depletion. Scientists believe that this has contributed to global warming.*
- b. **Form Opinions** Do you support or disagree with fracking? Provide reasons for your opinion.
Answers will vary. Students should provide reasons for their opinion.

Critical Thinking

3. **Evaluate** Draw a chart to explain how land is used in your community. Use the chart to help answer the following questions: What changes have been made to the environment to benefit people? How might human activities harm the environment? How can people use resources wisely? *Student answers will vary but should show an understanding of how people in their community have benefited from making changes to the environment, how people might have negatively affected the environment, and how people might work together to use resources wisely.*

Lesson 4 Assessment

Review Ideas, Terms, and Places

1. a. **Define** What is slash-and-burn agriculture?
b. **Draw Conclusions** What might happen if people did not develop human systems to deal with natural disasters?
2. a. **Explain** How do human activities in one place impact the global environment?
b. **Form Opinions** Do you support or disagree with fracking? Provide reasons for your opinion.

Critical Thinking

3. **Evaluate** Draw a chart to explain how land is used in your community. Use the chart to help answer the following questions: What changes have been made to the environment to benefit people? How might human activities harm the environment? How can people use resources wisely?

Beneficial Changes	Negative Effects	Conservation Ideas

► Online Assessment

1. How did the ancient Inca of Peru practice farming?
 - They moved periodically in search of fertile soil.
 - They used center-pivot irrigation to water crops.
 - They developed a slash-and-burn method to clear land.
 - They carved terraces into steep hillsides to create flat land.

Alternate Question Select the answer choice from the drop-down list to complete the sentence correctly.

The ancient Inca overcame the difficulties of farming in hilly areas by **carving terraces** ▾.

2. Which of the following solutions to respond to human activity also describes a disadvantage?
 - New roads help people travel faster.
 - New dams can harm the environment.
 - New buildings help people work better.
 - New dams steady water sources and control floods.

Alternate Question Select the answer choice from the drop-down list to complete the sentence correctly.

New **dams** ▾ may create steady water sources and control floods, but they can be harmful to the environment.

3. **Make Generalizations** How have people tried to prepare for natural disasters, such as tornadoes or earthquakes?

In areas where tornadoes are frequent, people have built basements as storm shelters in case of a tornado. In earthquake zones, governments have created buildings that can better withstand earth movements. In both of these areas, people practice drills intended to practice what to do in an emergency.

4. **Analyze Issues** How can governments help limit human destruction of the environment?

Governments can help limit human destruction of the environment by creating national parks and regulating the activities of businesses and individuals. Brazil has set aside large amounts of land in the Amazon rain forest as national parks or for lands inhabited by native populations who depend on the sensitive environment for their survival. The U.S. government's Environmental Protection Agency regulates the activities of businesses and individuals that pollute water sources. As well, other government agencies monitor air pollution by the burning of fossil fuels that produce unhealthy air and acid rain that causes deforestation.

ADDITIONAL INSTRUCTIONAL MATERIALS

continued from page 119

TIERED ACTIVITY

Respond to the Environment

Below Level Ask students to find and read a travel article (either online or in the newspaper) about a part of the world they would like to visit. Based on the information in the article, have them plan a list of items they will take with them on their visit. Ask students to explain why the things they have listed will be needed for their destination.

At Level Going beyond the Below Level activity, students should

- conduct further research on their destination and provide specifics about the environment they will encounter (e.g., climate, vegetation, wildlife, terrain, and so forth).

- explain if they would enjoy living in their destination permanently, giving reasons for their answer.

Above Level Going beyond the Below and At Level activities, students should

- identify some cultural practices that people who live in their destination have developed in response to environmental conditions.
- describe how environmental factors make daily life different in their destination than it is in their own community.

*Alternative Assessment Handbook, Rubrics 30: Research; and 37: Writing Assignments

continued from page 120

More About . . .

Tornado Alley The south-central United States is often referred to as “Tornado Alley” because the region annually experiences a high frequency of tornadoes. Though some experts disagree on the precise boundaries of Tornado Alley, the area generally encompasses central Texas into northern Iowa, and from central Kansas and Nebraska east into Indiana and parts of Ohio. Peak tornado seasons occur in late spring and early fall. In addition to Tornado Alley, Florida and the Gulf Coast region of the United States often experience such storms.

continued from page 120

SPECIAL NEEDS STUDENTS

Before and After Natural Disasters

1. Read aloud the section on Natural Hazards, and explain what tornadoes, earthquakes, and hurricanes are and the damages done by each. Review the damage that fires, especially forest fires, can do both to artificial structures and the natural landscape.
2. Have students find or draw contrasting images of landscapes before and after each type of disaster. Students who are vision-impaired may wish to create three-dimensional images, showing buildings destroyed by disaster.
3. Have students share their work and explain the changes in the before and after images.

*Alternative Assessment Handbook, Rubrics 3: Artwork; and 9: Comparing and Contrasting

continued from page 121

More About . . .

The Snail Darter In 1973 the discovery of a tiny fish—the snail darter—temporarily put a halt to the construction of the Tellico Dam on the Little Tennessee River. Citing the Endangered Species Act, environmentalists successfully delayed the completion of the dam—whose construction had already cost taxpayers millions of dollars—because it would eliminate the small fish’s only known habitat. Congress eventually managed to exempt the Tellico Dam project from the Endangered Species Act, and the dam was finally completed in 1979. Before completion, however, numerous snail darters were transplanted into nearby streams. The species has since been found in other locations in the Tennessee River Watershed.

Social Studies Skills

Organize Information

Define the Skill

Remembering new information is easier if you organize it clearly. As you read and study, try to organize what you are learning. One way to do this is to create a graphic organizer. As you read:

1. Identify the main idea of the text you are reading and write it in a circle.
2. Look for subtopics under the main idea. Write the subtopics in the circles below the main idea.
3. Below each subtopic, draw a big box. Look for facts and supporting details for each subtopic to list in the box.
4. Organizing information is not limited to text. You can organize information found in visuals, too. Take a look at the Irish Migration to the United States, 1845–1855 graph in Lesson 2. You could create a graphic organizer such as a chart showing the changing levels of migration, or you could write a summary that organizes the information.

Learn the Skill

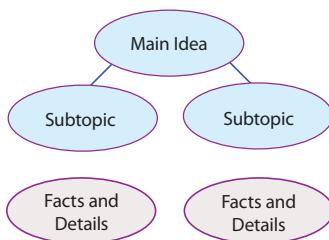
Study the chart about new legal permanent residents in the United States. Then create a graphic organizer or write a summary to organize the information.

Top Five Countries of Birth of New Legal Permanent Residents to the United States (by percent)	
Mexico	13.2
India	7.7
China	7.5
Philippines	4.9
Cuba	4.6
Other	62.1

Source: U.S. Department of Homeland Security

Practice the Skill

Turn to Lesson 1 and read the passage titled *Culture Regions*. Draw a graphic organizer and then follow the steps to organize the information you have read. The passage will have two or more subtopics. Add additional circles for each additional subtopic you find.



Social Studies Skills

Organize Information

Provide enough newspapers or magazine articles so that each student has access to one lengthy article. Have students read the articles they are given and create a graphic organizer that organizes the information. When complete, ask volunteers to share their graphic organizers with the class, including the notes they took. They should then provide a short oral summary of the article.

*Alternative Assessment Handbook, Rubric 13: Graphic Organizers

Answers

Learn the Skill

Students' graphic organizers and summaries will vary but should show an understanding of how to organize the information in the chart.

Practice the Skill

Students' graphic organizers will vary but should include the main idea of each passage, at least two subtopics, and facts and supporting details for each subtopic.

Module 3 Assessment

Print Assessment

Review Vocabulary, Terms, and Places

Complete each sentence by filling in the blank with the correct term from the word pair.

1. Members of a/an _____ often share the same religion, traditions, and language. (**ethnic group/population**) **ethnic group**
2. Music, art, and literature that transcend the boundaries of one society have _____. (**cultural universals/universal themes**) **universal themes**
3. _____, the process of moving from one place to live in another, is a cause of population change. (**Population density/Migration**) **Migration**
4. Family, education, religion, government, and economy are all examples of basic _____. (**technology/social institutions**) **social institutions**
5. A _____ is a path used by traders for buying and selling goods. (**settlement/trade route**) **trade route**

Comprehension and Critical Thinking

LESSON 1

6. a. **Describe** What is a multicultural society? *a variety of cultures existing in the same area*
b. **Identify** What impact has cultural diffusion had on individuals? What impact has cultural diffusion had on world societies? Define these impacts. *It spreads new forms of government, religious beliefs, ideas, and customs. Societies come into contact with each other, and they exchange culture traits. The traits spread and change societies.*
c. **Elaborate** Describe some of the culture traits practiced by people in your community. *Students may mention types of foods, music, holiday traditions, language, and so on.*

7. a. **Evaluate** Which social institution do you think is most important? Why? *Possible answer: family because parents and siblings are your most important role models and examples in life*
b. **Explain** What relationship exists between a society and its art, music, literature, and architecture? *Societies express themselves through art, music, literature, and culture.*
c. **Predict** Make a prediction about a future scientific discovery and a future technological innovation. What problem will each solve? What social, political, economic, cultural, or environmental impacts will each have? *Students' answers should reflect what they learned about the social, political, economic, cultural, and environmental impacts that science and technology can have on people's lives.*

LESSON 2

8. a. **Describe** What does population density tell us about a place? *how crowded a place is, land use, building types, traffic*

Review Vocabulary, Terms, and Places

Complete each sentence by filling in the blank with the correct term from the word pair.

1. Members of a/an _____ often share the same religion, traditions, and language. (**ethnic group/population**)
2. Music, art, and literature that transcend the boundaries of one society have _____. (**cultural universals/universal themes**)
3. _____, the process of moving from one place to live in another, is a cause of population change. (**Population density/Migration**)
4. Family, education, religion, government, and economy are all examples of basic _____. (**technology/social institutions**)
5. A _____ is a path used by traders for buying and selling goods. (**settlement/trade route**)

Comprehension and Critical Thinking

Lesson 1

6. a. **Describe** What is a multicultural society?
b. **Identify** What impact has cultural diffusion had on individuals? What impact has cultural diffusion had on world societies? Define these impacts.
c. **Elaborate** Describe some of the culture traits practiced by people in your community.
7. a. **Evaluate** Which social institution do you think is most important? Why?
b. **Explain** What relationship exists between a society and its art, music, literature, and architecture?
c. **Predict** Make a prediction about a future scientific discovery and a future technological innovation. What problem will each solve? What social, political, economic, cultural, or environmental impacts will each have?

Lesson 2

8. a. **Describe** What does population density tell us about a place?
b. **Draw Conclusions** Why do certain areas attract large populations?
c. **Elaborate** Why do you think it is important for geographers to study population trends?

Lesson 3

9. a. **Evaluate** Think about your own city or town. Why did people decide to establish a settlement in that location?
b. **Make Inferences** Why does a grid settlement design easily support transportation routes?
c. **Analyze** How can new technology negatively impact interaction between regions?

Lesson 4

10. a. **Form Opinions** Some areas of the world are at a greater risk for certain types of natural disasters such as hurricanes or earthquakes. Would the risk of a natural disaster impact your decision about where to live?
b. **Identify Problems** Think about one environmental issue that affects your state. What can be done to improve the situation?
c. **Describe** Give an example of new technology that is environmentally friendly. How does it work to benefit the environment?

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ONLINE DOCUMENT-BASED INVESTIGATION

The Human World

Have students complete and review all the DBI activities in **Part 1**.

Use this Informative/Explanatory Essay Rubric to score students' work in **Part 2**.

RUBRIC

- Students' essays should
- focus on the topic and support it with explanations and facts
 - present information logically, clearly, and accurately
 - cite at least three sources of relevant, informative text evidence from Part 1 in support of their topic
 - be organized into a distinct introduction, a main body consisting of several paragraphs, and a conclusion that sums up the main points

Write an Explanatory Essay Using the exhibits in Part 1 and your knowledge of the factors that help shape the human world, write an explanatory essay on the following topic. How are culture, population, and settlement patterns impacted by the physical environment? Be sure to cite specific evidence from at least three sources in your essay.

Module 3 Assessment, continued

Reading Skills

11. **Understand Main Ideas** Use the Reading Skills taught in this module to answer a question about the reading selection below.

The ancient Greeks were the first to practice democracy. Since then many countries have adopted democratic governments. The United Kingdom, South Korea, and Ghana all practice democracy. Democracy is the most widely used type of government in the world today.

What is the main idea of the paragraph?

Social Studies Skills 21st CENTURY

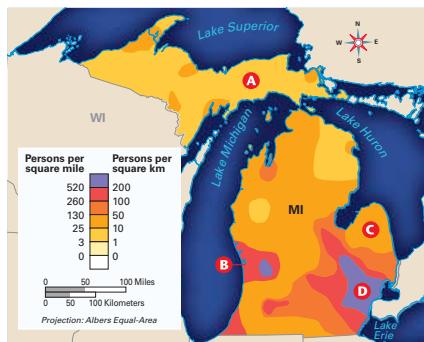
12. **Organize Information** Use the Social Studies Skills taught in this module to create a graphic organizer for Lesson 3.

Use the main ideas on the first page of the lesson for your large circles. Then write the subtopics under each main idea. Finally, identify supporting details for each subtopic.

Map Activity 21st CENTURY

Population Density Use the map to answer the questions that follow.

13. What letter on the map indicates the least crowded area?



The Human World 127

14. What letter on the map indicates the most densely crowded area?
15. Which letter indicates a region with 260–520 people per square mile (100–200 people per square km)?

Focus on Writing

16. **Write a Report** Population changes have a huge effect on the world around us. Countries around the globe must deal with shrinking populations, growing populations, and other population issues. Use Lesson 2 and other primary and secondary sources to explore the issues surrounding world population. Formulate appropriate questions to guide your research. You should use both print and digital sources. Collect information from non-print sources such as maps and graphs. Then imagine you have been asked to report on global population trends to the United Nations. Write a report in which you identify and describe world population trends and their impact on the world today. Be sure to apply key terms acquired from the lesson in your writing. Include at least one graphic that presents information related to the topic. Your report should be focused and organized with a clear introduction, supporting paragraphs, and conclusion. Check your report for spelling, grammar, capitalization, and punctuation.

- b. **Draw Conclusions** Why do certain areas attract large populations? *They may have fertile soil, a source of water, and a favorable climate for agriculture.*
- c. **Elaborate** Why do you think it is important for geographers to study population trends? *Possible answers: so that they can solve future problems and understand and address current problems*

LESSON 3

9. a. **Evaluate** Think about your own city or town. Why did people decide to establish a settlement in that location? *Answers will vary. Students should provide logical explanations.*
- b. **Make Inferences** Why does a grid settlement design easily support transportation routes? *Possible answer: People who use city transit systems as their primary mode of transportation can easily move within a grid system. Because the streets run at right angles to each other, all points in a region are close to a transit line and making connections is relatively quick and easy.*
- c. **Analyze** How can new technology negatively impact interaction between regions? *Possible answers: technology can sometimes malfunction; technology can make business relationships less personal by a lack of face-to-face meetings; concerns over cyber security*

LESSON 4

10. a. **Form Opinions** Some areas of the world are at a greater risk for certain types of natural disasters such as hurricanes or earthquakes. Would the risk of a natural disaster impact your decision about where to live? *Answers will vary. Students should provide reasons for their opinion.*
- b. **Identify Problems** Think about one environmental issue that affects your state. What can be done to improve the situation? *Answers will vary. Students should present a valid environmental issue in their state and at least one way to address the problem.*
- c. **Describe** Give an example of new technology that is environmentally friendly. How does it work to benefit the environment? *Possible answers: electric cars, produce fewer pollutants; digitization, fewer resources and less energy used to make physical items*

Essential Question ESSAY

Which geographic concepts are most useful for understanding the world's people?

RUBRIC

- Students' essays should
- respond to the Essential Question with a specific position
 - illustrate valid reasoning supporting their position
 - cite persuasive evidence supporting their position
 - identify key people, events, and/or turning points that demonstrate understanding of the module content
 - be organized into a distinct introduction, main body, and conclusion

Write an argument answering this question. Your essay should include specific details about the geographic concepts that you find most useful for understanding the world's people. Be sure to cite evidence to support your point and organize your essay into an introduction, body, and conclusion.

Alternative Activity Instead of writing essays, address the Essential Question through activities such as holding debates, creating multimedia presentations, or writing journal entries. See the Alternative Assessment Handbook for a selection of project rubrics.

Reading Skills

11. **Understand Main Ideas** Use the Reading Skills taught in this module to answer a question about the reading selection below.

The ancient Greeks were the first to practice democracy. Since then many countries have adopted democratic government. The United Kingdom, South Korea, and Ghana all practice democracy. Democracy is the most widely used type of government in the world today.

What is the main idea of the paragraph? *Democracy, which is a system of government used around the world today, has been practiced since the time of the ancient Greeks.*

Social Studies Skills

12. **Organize Information** Use the Social Studies Skills taught in this module to create a graphic organizer for Lesson 3. Use the main ideas on the first page of the section for your large circles. Then write the subtopics under each main idea. Finally, identify supporting details for each subtopic. *Students' graphic organizers should reflect an understanding of Lesson 3.*

Map Activity

Population Density Use the map to answer the questions that follow.

13. What letter on the map indicates the least crowded area? A
14. What letter on the map indicates the most densely crowded area? D
15. Which letter indicates a region with 260–520 people per square mile (100–200 people per square km)? B

Focus on Writing

16. **Writing a Report** Population changes have a huge effect on the world around us. Countries around the globe must deal with shrinking populations, growing populations, and other population issues. Use Lesson 2 and other primary and secondary sources to explore the issues surrounding world population. Formulate appropriate questions to guide your research. You should use both print and digital sources. Collect information from non-print sources such as maps and graphs. Then imagine you have been asked to report on global population trends to the United Nations. Write a report in which you identify and describe world population trends and their impact on the world today. Be sure to apply key terms acquired from the lesson in your writing. Include at least one graphic that presents information related to the topic. Your report should be focused and organized with a clear introduction, supporting paragraphs, and conclusion. Check your report for spelling, grammar, capitalization, and punctuation.

RUBRIC Students' reports should

- identify and describe world population trends and their impact on the world today
- use key terms from the lesson
- include at least one graphic that presents information related to the topic
- be organized and focused on the topic
- use proper spelling, grammar, capitalization, and punctuation

► Online Assessment

1. Drag the name of the country into the box next to a description of its culture trait.

people enjoy dancing Samba at festivals	Brazil
people scoop their food with their fingers or a piece of bread	Ethiopia
school lunches include a meal of dried beans and corn called githeri	Kenya
school lunches include rice and some form of protein like fish or chicken	Japan

2. Look at the map and answer the question below.



Which culture region is represented here?

- Arab
 - Jewish
 - Chinese
 - American
3. How did Henry Ford improve the American automobile industry?
- He hired auto mechanics to work on his cars.
 - He used an assembly line process to produce faster cars.
 - He began placing computers in his cars to improve their performance.
 - He used an assembly line process to produce more cars at a lower price.
4. Drag the answer choices into the boxes to complete the sentence correctly.
- A continent's geography helps determine the size of human settlements and population density. While it is not the largest continent, **Europe** has the highest population density. Even though it is not the smallest continent, **Antarctica** has the lowest population density.
5. There are many reasons why people migrate to other countries. Select the correct button in the table to show if the reason is a push or a pull factor.
- | Reason for migrating | Push | Pull |
|-------------------------------|----------------------------------|----------------------------------|
| warfare | <input checked="" type="radio"/> | <input type="radio"/> |
| lack of good jobs | <input checked="" type="radio"/> | <input type="radio"/> |
| promise of cheap land | <input type="radio"/> | <input checked="" type="radio"/> |
| opportunities for better life | <input type="radio"/> | <input checked="" type="radio"/> |
| poor farmland or crop failure | <input checked="" type="radio"/> | |
6. Why has the world's population increased so rapidly in the past 200 years?
- Farmers have improved food production.
 - Countries have large populations living in poverty.
 - Nations have settled their disputes through violence.
 - Many governments have provided poor health care services.

7. How did Singapore grow to become a wealthy nation?

- The country is rich in natural resources.
- The country benefits from its caravan trade.
- The country is located along an important trade route.
- The country has large tracts of land suitable for farming.

8. What would most likely cause people living in cluster settlements to move away from those towns?

- if natural resources were exhausted
- if trains failed to stop at their stations
- if the area were threatened by flooding
- if the area were bypassed by a highway

9. Which of the following explains the importance of modern cities?

Select the three correct answers.

- They are centers of commerce and trade.
- They have economies based on recreation.
- They provide agricultural products for a region.
- They provide advanced educational opportunities.
- They are areas of mining production for coal or iron.
- They often provide government services for a region.

10. Why do tsunamis pose a great threat to human life?

- People have chosen to live along coasts.
- Scientists do not know when they will strike.
- Scientists do not know how they are formed.
- People are affected by ash clouds after they occur.

11. Human activity can have serious negative effects on the environment.

Select the correct button in the table to show if the statement describes deforestation or desertification.

	Deforestation	Desertification
increases global warming	<input checked="" type="radio"/>	<input type="radio"/>
damages soil and vegetation	<input type="radio"/>	<input checked="" type="radio"/>
leads to food shortages for a region	<input type="radio"/>	<input checked="" type="radio"/>
causes the loss of habitat for many species	<input checked="" type="radio"/>	

12. Fracking uses groundwater in the mining of oil and natural gas. Select the correct button in the table to show whether the statement is an argument in favor of or against fracking.

	For	Against
contaminates drinking water	<input type="radio"/>	<input checked="" type="radio"/>
boosts the national economy	<input checked="" type="radio"/>	<input type="radio"/>
reduces dependence on foreign oil	<input checked="" type="radio"/>	<input type="radio"/>
significantly damages the environment	<input type="radio"/>	<input checked="" type="radio"/>